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CRPL-F 228 PART A

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PART A  
IONOSPHERIC DATA

ISSUED  
AUGUST 1963

U. S. DEPARTMENT OF COMMERCE  
NATIONAL BUREAU OF STANDARDS  
CENTRAL RADIO PROPAGATION LABORATORY  
BOULDER, COLORADO



## IONOSPHERIC DATA

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## IONOSPHERIC DATA

The CRPL-F series bulletins are issued as part of the responsibility of the Central Radio Propagation Laboratory for the exchange and distribution of ionospheric and related geophysical data. Part A, "Ionospheric Data," and Part B, "Solar-Geophysical Data," of the CRPL-F series present a variety of data in convenient form for use in research in radio propagation and the ionosphere and in other geophysical problems.

The current form of the tables of ionospheric data provides the monthly medians and, in addition, the number of values entering into the median determination (count) for all ionospheric characteristics listed. Also, when available, the upper and lower quartile values indicated by UQ and LQ in the tables, are listed for foF2, h'F2, h'F, and M(3000)F2. Quartile values are not listed for the other characteristics because of space limitations. The tables are prepared by IBM machine methods.

Beginning with CRPL-F221, Part A, "Ionospheric Data," the hourly median values for the graphs of critical frequencies and M(3000)F2 were plotted by machine methods instead of manually, as in earlier issues. Graphs of critical frequencies and M(3000)F2 will continue to appear. Graphs of percentage of time of occurrence for fEs and virtual heights of the regular ionospheric layers are no longer included. Data on percentage of time of occurrence of fEs above 3, 5, and 7 Mc are available from the CRPL and the IGY World Data Center for Airglow and Ionosphere.

For many years, the tables of ionospheric data appearing in the F series, Part A, listed values of medians recomputed at CRPL. While this practice enforced a certain uniformity, it was subject to some valid criticism for tampering with the original data. The tables and graphs now show the ionospheric data as they are provided by the originating laboratory. Responsibility for the accuracy and reliability of the data rests entirely with the originator.

Medians of data for the U.S. stations are computed in accordance with the recommendations of the World-Wide Soundings Committee. Data will appear in the F series, Part A, only when the complete daily-hourly tabulations have been received by the CRPL or the IGY World Data Center A for Airglow and Ionosphere.

Information on symbols, terminology, and conventions may be found in the "URSI Handbook of Ionogram Interpretation and Reduction, of the World-Wide Soundings Committee," edited by W. R. Piggott and K. Rawer (Elsevier, 1961), which supersedes previous documents. A list of symbols is available from CRPL on request.

The following table contains the latest available information on smoothed observed Zurich sunspot numbers, beginning with the minimum of April 1954. Final numbers are listed through June 1962, the succeeding values being based on provisional data.

Smoothed Observed Zurich Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	10	12
1955	14	16	19	23	29	35	40	46	55	64	73	81
1956	89	98	109	119	127	137	146	150	151	156	160	164
1957	170	172	174	181	186	188	191	194	197	200	201	200
1958	199	201	201	197	191	187	185	185	184	182	181	180
1959	179	177	174	169	165	161	156	151	146	141	137	132
1960	129	125	122	120	117	114	109	102	98	93	88	84
1961	80	75	69	64	60	56	53	52	52	51	50	49
1962	45	42	40	39	39	38	36	34	32	31	30	30
1963	29											

Units of Ionospheric Data Tables

foF2, foEs - - - Tenths of a megacycle  
 foF1, foE - - - Hundredths of a megacycle  
 h'F2, h'F, h'E - Kilometers  
 (M3000)F2 - - - Hundredths

NOTE: Occasionally, when the median falls between two of the observed values, the median is carried an extra decimal place beyond these units. Those cases are easily identifiable by the extra digit appearing to the right of the number, in a column usually left blank.

MED - Median  
 CNT - Count  
 UQ - Upper Quartile  
 LQ - Lower Quartile

## WORLD - WIDE SOURCES OF IONOSPHERIC DATA

THE IONOSPHERIC DATA GIVEN IN TABLES 1 TO 100 AND FIGURES 1 TO 100 WERE ASSEMBLED BY THE CENTRAL RADIO PROPAGATION LABORATORY FOR ANALYSIS, CORRELATION AND DISTRIBUTION. THE FOLLOWING ARE THE SOURCES OF THE DATA IN THIS ISSUE.

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MANILA OBSERVATORY, PHILIPPINES.  
BAGUIO, LUZON

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WARSAW, POLAND

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ADAK, ALASKA  
GRAND BAHAMA I.  
OKINAWA I.  
WHITE SANDS, NEW MEXICO

NATIONAL BUREAU OF STANDARDS, UNITED STATES OF AMERICA.  
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FAIRBANKS (COLLEGE), ALASKA (GEOPHY INST OF UNIV OF ALASKA)  
HUANCAYO, PERU (INSTITUTO GEOFISICO DEL PERU)  
POLE STATION, ANTARCTICA  
WASHINGTON, D.C.



# TABLES OF IONOSPHERIC DATA

December 1962 - May 1969

		151+094 172+000																							TIME 1800-CE		
MO	HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
foF2	MED	51	46	53	60	63	60	53	57	58	59	60	57	56	54	54	52	51	55	55	50	45	48	52	56		
	CNT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
	U	55	53	46	47	52	57	63	94	64	62	61	59	56	56	57	57	57	55	57	52	60	73	67			
	LO	48	42	40	38	41	45	50	54	58	54	52	51	53	52	44	52	44	52	48	62	63	58	50			
h'F2	MED	320	325	335	358	378	352	340	345	356	378	388	360	370	338	318	290	300	335	313	277	237	1				
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	U	372	360	402	410	411	378	365	374	366	438	400	335	410	358	335	270	340	294	267							
	LO	309	341	342	335	330	322	325	340	312	359	346	335	340	310	294	267										
h'F	MED	260	265	265	282	258	231	228	222	230	210	208	202	200	197	198	206	219	234	227	233	242	242				
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	U	255	277	278	274	260	250	260	224	215	207	201	210	214	215	222	256	265	270	270	250	265	260				
	LO	243	245	250	274	240	229	220	212	210	195	190	185	190	195	190	210	224	230	248	245	235	230				
M3000F2	MED	295	295	270	295	368	260	280	275	295	300	300	308	285	250	260	365	300	300	305	310	312	305	300			
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
	U	365	360	360	360	300	290	300	295	400	310	305	320	350	360	310	310	310	315	320	320	310	310				
	LO	250	250	285	280	275	275	270	270	280	280	290	290	280	280	285	300	280	295	290	300	300	305				
foF1	MED	280	16	25	24	23	19	27	22	27	29	28	27	27	29	28	27	27	29	27	29	28	29				
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	U																										
	LO																										
foE	MED	180	220	262	280	300	320	328	340	330	310	312	310	310	312	310	312	300	270	235	1						
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	U																										
	LO																										
h'E	MED	131	110	105	102	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100				
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	U																										
	LO																										
foEs	MED	17	18	155	14	19	27	335	395	43	485	43	405	41	37	35	35	35	35	35	35	35	35				
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	U																										
	LO																										

SHEEP 1.0 MC TO 25.0 MC IN 27 SECONDS.

ADANA, ALASKA

151-0N, 176-0W

TIME 1800-OW

JUNE, 1962

TABLE 4

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 5

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 6

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 7

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 8

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 9

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 10

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 11

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 12

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 13

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 14

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 15

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 16

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 17

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 18

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 19

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 20

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 21

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 22

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 23

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 24

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 25

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 26

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 27

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 28

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 29

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 30

112-05, 75-3W

HUACAYO, PERU

TIME 75-OW

JUNE, 1962

TABLE 31

112-05, 7

[illegible][illegible][illegible][illegible]

TABLE 9  
GARCHY, FRANCIS  
(47, 3N, 316)

	hour	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	MED	U	36	36	35	33	30	30	29	32	52	64	64	65	63	64	62	56	52	45	35	31	32	31	32	33
	CNT	25	46	26	26	21	25	23	24	27	26	23	26	25	25	26	28	29	27	29	26	21	22	26	26	
	U/L																									
f2F	MED																									
	CNT																									
	U/L																									
f2F	MED	280	270	360	370	360	250	250	240	215	220	215	215	210	215	220	220	215	210	230	230	240	260	270	280	
	CNT	28	28	25	28	25	28	27	27	27	28	28	30	29	29	28	30	28	27	28	28	23	25	25	27	
	U/L																									
f2F	MED	285	303	295	295	305	320	325	320	360	360	365	360	365	350	365	365	350	335	330	330	315	305	295	295	
	CNT	10	16	12	12	14	11	13	14	13	14	16	18	21	21	19	22	12	13	14	18	14	17	10	12	
	U/L																									
f6F1	MED																									
	CNT																									
	U/L																									
f6E	MED									195	250	265	280	280	280	255	220	175								
	CNT									24	21	22	26	29	28	24	23	20								
	U/L																									
f2E	MED																									
	CNT																									
	U/L																									
f2E	MED																									
	CNT																									
	U/L																									
f6Ea	MED	15	76	23	27	24	27	27	25	22	27	30	32	32	32	30	28	21								
	CNT	23	76	23	27	24	27	27	25	14	16	13	15	14	7	11	11	16	25	2	14					
	U/L																									

RESOLUTE BAY, CANADA  
(74.7°N, 94.5°W)

[illegible]

SWEEP 1.0 MC TO 17.0 MC IN 20 SECONDS.

DECEMBER, 1961

TABLE 11

ULEA\* WEDEN 165.0N\* 22.1E)

	MOUR	C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23
f6F2	MED CNT UQ	30 2	22 4	18 6	19 8	18 5	18 11	18 8	17 6	20 14	35 24	43 27	49 25	42 24	51 25	46 24	36 23	31 13	21 15	20 5					
f1F2	MED CNT UQ																								
f1F	MED CNT UQ	315 9	310 16	300 15	300 14	290 10	295 10	280 10	280 4	250 21	240 22	225 17	225 17	215 17	215 17	245 25	245 25	245 22	250 14	250 6					
M35000IF2	MED CNT UQ	332 1	320 6	300 2	290 5	310 11	310 7	300 9	330 21	330 26	350 31	350 31	340 27	340 27	340 27	340 27	340 27	330 12	330 12	320 5					
f6F1	MED CNT																								
f6E	MED CNT									170 1	170 6	180 11	175 9	160 8											
f6N'E	MED CNT									130 1	130 2	130 2	135 5												
f6En	MED CNT	23 1	21 1	22 2	20 9	20 9	21 12	21 12	22 5	170 10	170 10	170 10	165 10	160 7	160 7	165 10	165 10	160 5	160 5	160 5					

YOKOSUKA, S. I.  
(64-7N, 18-0E)  
TABLE 12

[illegible][illegible]

AL - 144 - FRANCE

[illegible]

TABLE 24

145,6N. 161-7F.

	HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MEQ	33	33	33	33	30	31	35	42	56	55	73	75	70	67	63	58	51	37	30	30	29	28	30	32
	CHT	33	33	33	33	30	31	35	42	56	55	73	75	70	67	63	58	51	37	30	30	29	28	30	32
	UQ	36	36	36	35	35	36	33	47	63	60	70	70	77	73	70	62	40	44	35	33	32	35	38	
	LQ	30	30	30	30	30	28	26	38	52	50	68	68	64	63	58	56	40	33	26	27	26	25	28	30
h'F2	MEQ									520	360	255	250	2+5											
	CHT									1	1	3	4	1											
	UQ																								
	LQ																								
h'F	MEQ	310	300	285	270	280	280	285	275	277	229	235	230	225	230	230	220	220	230	240	270	270	310	335	320
	CHT	31	31	31	31	31	31	31	31	31	30	30	27	31	31	31	31	31	31	31	31	31	31	31	31
	UQ																								
	LQ																								
M3000F2	MEQ	250	255	295	297	285	310	327	371	355	345	345	345	350	350	350	350	335	335	315	310	320	300	285	250
	CHT	25	29	27	27	25	30	33	31	30	30	29	31	31	31	31	31	31	31	31	31	31	27	28	20
	UQ																								
	LQ																								
f6F1	MEQ									330	370	370	390												
	CHT									1	1	1	1												
	UQ																								
	LQ																								
f6E	MEQ									210	240	265	275	275	255	230	215								
	CHT									7	26	27	27	28	27	20	1								
	UQ																								
	LQ																								
h'E	MEQ																								
	CHT																								
	UQ																								
f6Es	MEQ	31	31	31	31	31	31	30	31	24	240	24	24	29	27	25	23	22	30	30	31	29	31	31	31
	CHT																								
	UQ																								

1000

[illegible]

TABLE 1

[illegible]

TABLE 17  
OF ALL, NETHERLANDS  
(S.I.N. 533)

[illegible]

INDAU/HARZ • GERMAN • (5) • 6N • 10.1E

[illegible]

TABLE 19  
COURTESY, AFLCTUM  
150.1N, 4.6E

	MSR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
	LO	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	
	UO	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	
f62	MED	31	32	33	34	35	36	38	40	47	50	54	59	65	66	67	68	70	73	76	77	78	79	80	81
	CNT	29	28	27	26	25																			

TABLE 20

DIAMONITE - TECHNOSQUAKIA

(50-ON, 14-65)

[illegible]

SWEEP 1.0 MC TO 16.0 MC IN 4 MINUTES.

DECEMBER • 1961

DECEMBER, 1961

SWEEP 1-0 MC TO 20-0 MC IN 3 MINUTES.

DECEMBER • 1961

1.0 M<sup>2</sup> 19.0 M<sup>2</sup>

5 SEPTEMBER 1961

[illegible][illegible][illegible][illegible]



OTTAWA, CANADA  
TABLE 2\*  
[45°N, 75°W]  
TIME 75-04

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f <sub>o</sub> F <sub>2</sub>	20	20	22	22	24	22	22	25	46	57	63	70	72	72	70	66	62	55	45	31	28	24	21	20
MED	27	28	27	28	30	27	26	28	30	37	43	51	51	51	51	51	51	50	40	30	26	24	24	24
CNT	27	28	27	28	30	27	26	28	30	37	43	51	51	51	51	51	51	50	40	30	26	24	24	24
LO	20	20	20	20	20	20	20	24	45	54	60	65	69	69	68	62	58	50	40	32	25	21	20	20
h'F <sub>2</sub>									1	2	235	250	260	260	250	240	225							
MED																								
CNT																								
LO																								
h'F	320	320	300	300	290	290	300	270	220	220	220	205	200	210	220	230	215	210	220	240	250	285	300	330
MED	26	26	25	28	29	27	28	29	30	28	31	29	28	29	30	31	30	31	30	30	29	30	27	24
CNT	26	26	25	28	29	27	28	29	30	28	31	29	28	29	30	31	30	31	30	30	29	30	27	24
LO																								
M3000F <sub>2</sub>	310	310	310	310	310	310	310	310	310	340	350	340	340	340	340	340	330	320	320	310	310	310	310	4
MED	8	8	5	6	5	4	4	6	22	20	27	21	21	21	21	19	22	17	16	18	12	7	4	4
CNT	8	8	5	6	5	4	4	6	22	20	27	21	21	21	21	19	22	17	16	18	12	7	4	4
LO																								
f <sub>o</sub> F <sub>1</sub>									360	360	360	330	380	400	360	330	2							
MED																								
CNT																								
LO																								
f <sub>o</sub> E									180	220	260	280	280	280	260	250	220	190						
MED									18	19	18	16	18	19	21	21	21							
CNT									18	19	18	16	18	19	21	21	21							
LO																								
h'E																								
MED																								
CNT																								
LO																								
f <sub>o</sub> E <sub>s</sub>																								
MED																								
CNT																								
LO																								

SWEEP 1.0 MC TO 16.0 MC IN 16 SECONDS.

DECEMBER, 1961

ROME, ITALY  
TABLE 2b  
[44°46'N, 12°56'E]  
TIME 15-0E

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f <sub>o</sub> F <sub>2</sub>	36	35	35	34	36	33	29	34	56	61	68	76	77	70	68	67	61	50	37	34	32	32	32	34
MED	38	37	37	36	38	35	32	37	60	65	72	81	80	72	71	65	52	39	27	28	24	23	23	34
CNT	38	37	37	36	38	35	32	37	60	65	72	81	80	72	71	65	52	39	27	28	24	23	23	34
LO	34	31	31	31	31	29	26	30	51	57	60	73	70	66	64	62	56	46	32	29	30	30	29	31
h'F <sub>2</sub>																								
MED																								
CNT																								
LO																								
h'F	290	265	290	260	250	240	250	250	220	220	220	225	220	220	210	220	220	210	240	250	250	260	300	300
MED	25	26	25	27	28	27	25	26	26	25	27	24	28	28	27	28	29	29	27	28	24	23	24	25
CNT	25	26	25	27	28	27	25	26	26	25	27	24	28	28	27	28	29	29	27	28	24	23	24	25
LO	270	250	270	250	245	240	235	240	210	210	210	215	210	205	200	220	210	210	220	240	240	250	290	330
M3000F <sub>2</sub>	285	295	290	290	305	325	310	300	345	350	335	340	365	340	335	335	345	340	315	315	310	305	280	270
MED	20	21	22	19	25	22	23	24	21	22	21	21	24	24	24	26	21	17	21	22	17	19	23	18
CNT	20	21	22	19	25	22	23	24	21	22	21	21	24	24	24	26	21	17	21	22	17	19	23	18
LO	280	285	280	280	295	305	295	300	335	340	325	325	355	335	325	325	325	310	305	305	290	280	270	265
f <sub>o</sub> F <sub>1</sub>																								
MED																								
CNT																								
LO																								
f <sub>o</sub> E									200	220	250	280	290	280	270	240	200							
MED									7	23	22	20	24	25	25	19	15							
CNT									7	23	22	20	24	25	25	19	15							
LO																								
h'E									140	120	120	120	120	120	120	130								
MED									8	23	24	24	26	26	22	15	13							
CNT									8	23	24	24	26	26	22	15	13							
LO																								
f <sub>o</sub> E <sub>s</sub>									26	250	27	26	28	28	28	26	29	29	28	30	29	25	28	28
MED																								
CNT																								
LO																								

SWEEP 1.4 MC TO 15.0 MC IN 5 MINUTES, AUTOMATIC.

DECEMBER, 1961

AKITA, JAPAN  
TABLE 27  
[39°37'N, 140°11'E]  
TIME 135-0E

MSUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f <sub>o</sub> F <sub>2</sub>	33	34	34	34	32	31	30	48	50	65	74	79	73	68	66	62	54	42	33	32	29	28	31	
	MED	23	27	28	28	27	28	29	30	29	29	29	28	29	29	29	29	29	29	28	28	25	23	
	CNT	23	27	28	28	27	28	29	30	29	29	29	28	29	29	29	29	29	29	28	28	25	23	
	LO	30	30	30	30	28	28	28	44	56	58	70	74	68	66	62	58	52	40	30	30	30	27	26
h'F <sub>2</sub>									245	250	245	245	245	245	245	245								
	MED								12	14	21	20	16	16	16	11								
	CNT								12	14	21	20	16	16	16	11								
	LO																							
h'F	300	295	295	270	280	265	250	240	220	220	240	240	240	235	240	240	220	230	240	245	245	280	300	300
	MED	28	29	28	30	27	29	30	30	29	29	29	28	29	29	29	30	30	30	30	30	24	25	28
	CNT	28	29	28	30	27	29	30	30	29	29	29	28	29	29	29	30	30	30	30	30	24	25	28
	LO																							
M3000F <sub>2</sub>	285	285	290	305	300	305	315	340	345	355	345	350	350	350	350	355	340	330	335	335	320	315	280	265
	MED	23	27	28	28	27	28	29	30	29	29	29	28	29	29	29	30	30	30	30	28	25	23	22
	CNT	23	27	28	28	27	28	29	30	29	29	29	28	29	29	29	30	30	30	30	28	25	23	22
	LO																							
f <sub>o</sub> F <sub>1</sub>									U	360	380	370	370	340	320	310								
	MED								2	2	2	2	2	2	2	2								
	CNT								2	2	2	2	2	2	2	2								
	LO																							
f <sub>o</sub> E									E	270	270	290	300	300	290	260	230	E						
	MED							6										14						
	CNT																							
	LO																							
h'E																								
	MED																							
	CNT																							
	LO																							
f <sub>o</sub> E <sub>s</sub>	E	E	E	E	E	E	E	E	G	28	33	33	32	30	28	G	G	E	E	E	E	E	E	E
	MED	29	30	29	30	30	30	30	30	28	290	27	29	29	29	29	27	29	27	29	27	30	30	30
	CNT	29	30	29	30	30	30	30	30	28	290	27	29	29	29	29	27	29	27	29	27	30	30	30
	LO																							

YAMACALAS, JAPAN

TABLE 31

123+ON, 120+SE

TIME 135.05

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	28	29	32	32	33	29	25	35	60	68	74	78	81	81	80	76	70	62	47	37	35	36	31	28
MED	29	32	30	30	30	29	28	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	
CNT	29	32	30	30	30	29	28	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	
LO	28	28	29	29	31	27	23	34	56	68	72	78	76	70	72	66	57	43	35	32	30	26	25	
h'F2									255	250	255	260	255	260	255	245								
MED									5	16	18	16	9	2										
CNT																								
LO																								
h'F	650	320	300	170	360	340	380	240	240	240	220	225	225	220	235	230	220	220	240	250	255	270	300	
MED	27	27	28	30	30	27	19	30	30	30	25	29	30	29	30	30	30	30	28	29	29	26	21	
CNT	27	27	28	30	30	27	19	30	30	30	25	29	30	29	30	30	30	30	28	29	29	26	21	
LO																								
M3000IF2	260	265	250	255	310	315	305	320	365	350	345	365	315	315	330	340	345	350	335	325	320	310	315	295
MED	29	30	30	30	30	29	29	29	29	29	29	29	29	29	29	28	30	30	30	30	30	30	30	
CNT	29	30	30	30	30	29	29	29	29	29	29	29	29	29	29	28	30	30	30	30	30	30	30	
LO																								
f6F1									440	430	440	420												
MED																								
CNT																								
LO																								
f6E									210	240	260	310	315	310	305	275	240							
MED									28	30	29	27	27	26	26	23	22							
CNT									28	30	29	27	27	26	26	23	22							
LO																								
h'E																								
MED																								
CNT																								
LO																								
f6E4	26	32	32	32	32	32	27	21	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
MED	1	3	13	30	30	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
CNT	1	3	13	30	30	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
LO																								

SWEEP 3.0 MC TO 20.0 MC IN 20 SECONDS.

DECEMBER, 1961

AMHEDABAO, INDIA																									
(23+ON, 72+SE)																									
HOUR		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED	44	45	46	41	32	23	23	56	74	46	92	96	87	101	110	120	120	121	110	80	73	66	49	46
	CNT	20	20	17	18	16	16	17	15	13	12	14	15	17	17	17	16	16	18	17	21	20	20	20	21
	LO																								
	LO																								
h'F2	MED									240	245	245	255	270	288	280	355	345	235						
	CNT									15	13	15	17	19	18	18	17	19	19						
	LO																								
	LO																								
h'F	MED	300	300	250	233	225	240	273	240	235	230	220	220	223	243	235	235	240	225	213	206	225	225	225	233
	CNT	17	17	15	16	16	16	16	15	15	13	13	18	18	18	18	16	18	17	16	20	19	20	20	
	LO																								
	LO																								
M3000IF2																									
f6F1	MED									390	440	450	470	460	480	470	430	390							
	CNT									2	12	14	17	14	16	15	15	10							
	LO																								
	LO																								
f6E	MED									150	220	270	320	330	340	330	320	290	250	180	206				
	CNT									2	15	10	12	15	15	16	15	16	13	4					
	LO																								
	LO																								
h'E	MED									123	115	110	110	108	110	105	110	108	110	120	128	110			
	CNT									2	15	13	15	14	14	16	16	17	17	12	4				
	LO																								
	LO																								
f6E4	MED	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	CNT	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	LO																								
	LO																								

DECEMBER, 1961

1254.00, 1214.5																								TIME 120.05			
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
f6F2	MED	18	27	38	38	28	23	9	31	31	31	86	93	112	124	122	96	70	60	58	54	46	40	30			
	CNT	18	27	38	38	28	23	9	31	31	31	86	93	112	124	122	96	70	60	58	54	46	40	30			
	U	40	64	40	49	34	26	36	62	82	96	100	86	416	425	411	330	324	31	80	70	68	74	62			
	LO	31	32	32	32	28	22	28	50	65	76	83	76	94	91	105	108	85	75	63	52	49	46	38			
h'F2	MED								245	250	245	255	275	270	260	240	235										
	CNT								3	3	3	3	3	3	3	3	3										
	U								245	250	245	255	275	270	260	240	235										
	LO								3	3	3	3	3	3	3	3	3										
h'F	MED	16	25	29	30	28	21	5	31	30	31	30	28	28	29	29	31	31	31	30	31	31	24	17			
	CNT	16	25	29	30	28	21	5	31	30	31	30	28	28	29	29	31	31	31	30	31	31	24	17			
	U								235	230	220	210	200	200	220	220	230	210	200	220	240	235	240	275			
	LO																										
M3000IF2	MED	275	280	305	325	360	320	300	365	365	350	365	335	320	320	330	330	365	365	335	305	325	325	320			
	CNT	275	280	305	325	360	320	300	365	365	350	365	335	320	320	330	330	365	365	335	305	325	325	320			
	U	290	310	315	345	360	360	310	350	355	355	364	335	325	335	365	365	365	365	365	325	330	340	335			
	LO	270	275	270	290	320	280	290	335	360	360	360	330	310	315	320	330	340	335	325	290	310	310	305			
f6F1	MED								445	430	450	460	405	4													
	CNT								2	2	2	2	3	4													
	U								445	430	450	460	405	4													
	LO																										
f6E	MED								275	260	315																
	CNT								1	6	3																
	U								275	260	315																
	LO																										
h'E	MED								116	111	105	113															
	CNT								2	20	20	6															
	U								116	111	105	113															
	LO																										
f6Es	MED	30	29	30	30	27	24	18	16	21	310	26	37	35	33	28	30	26									
	CNT	30	29	30	30	27	24	18	16	21	310	26	37	35	33	28	30	26									
	U																										
	LO																										





TIME 12:24

12:24 12:25

12:25 12:26

12:26 12:27

12:27 12:28

12:28 12:29

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f2 F2	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
UO	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
LO	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
n F2																								
UO																								
LO																								
n F																								
UO																								
LO																								
M3000IF2																								
UO																								
LO																								
f2 F1																								
UO																								
LO																								
f2 E																								
UO																								
LO																								
n E																								
UO																								
LO																								
f2 E4																								
UO																								
LO																								

DECEMBER, 1961

SWEET 1.0 MC TO 25.0 MC IN 10 SECONDS

DECEMBER, 1961

SWEET 1.0 MC TO 25.0 MC IN 1 MINUTE 15 SECONDS

TABLE  
CAMBODIA, AUSTRALIA  
135.3.3. 144.0.1

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f2 F2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UO	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
LO	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
n F2																								
UO																								
LO																								
n F																								
UO																								
LO																								
M3000IF2																								
UO																								
LO																								
f2 F1																								
UO																								
LO																								
f2 E																								
UO																								
LO																								
n E																								
UO																								
LO																								
f2 E4																								
UO																								
LO																								

DECEMBER, 1961

SWEET 1.0 MC TO 25.0 MC IN 10 SECONDS

DECEMBER, 1961

SWEET 1.0 MC TO 25.0 MC IN 1 MINUTE 15 SECONDS

TABLE  
CAMBODIA, AUSTRALIA  
135.3.3. 144.0.1

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f2 F2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
UO	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
LO	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
n F2																								
UO																								
LO																								
n F																								
UO																								
LO																								
M3000IF2																								
UO																								
LO																								
f2 F1																								
UO																								
LO																								
f2 E																								
UO																								
LO																								
n E																								
UO																								
LO																								
f2 E4																								
UO																								
LO																								

DECEMBER, 1961

SWEET 1.0 MC TO 25.0 MC IN 1 MINUTE 15 SECONDS

TABLE 41

MOHART, TASMANIA

142.95, 147.2-E

TIME 15.0-18

MOON	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
hF2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
M3000F2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF1	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hEa	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

SHEEP 14.0 MC TO 19.40 MC IN 1 MINUTE + 65. LCONC.

DECEMBER, 1961

TABLE 42

CURRIE NORTH, NEW ZEALAND

163.85, 72.4-E

TIME 18.0-21

MOON	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
hF2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
M3000F2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF1	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hEa	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

SWEEP

DECEMBER, 1961

FALLBANK 1

151.7, 57.39-E

TIME 03.0-04

MOON	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
hF2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
M3000F2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF1	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hEa	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

SWEEP

DECEMBER, 1961

TABLE 44

KIRUNA, SWEDEN

19.78-N, 20.4-E

TIME 15.0-16

MOON	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
hF2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
M3000F2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hF1	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hE	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
hEa	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

SWEEP 14.0 MC TO 16.40 MC IN 1 MINUTE + 65. LCONC.

NOVEMBER, 1961



DE BILT, NETHERLANDS

TABLE 49

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f <sub>o</sub> F2	31	32	32	30	27	23	43	62	64	72	80	78	72	72	68	53	46	38	32	31	30	29	27	23
MEQ	29	28	27	28	29	33	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
CNT	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
UQ	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
f <sub>o</sub> F2	25	24	25	21	21	20	18	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
MEQ	25	24	25	21	21	20	18	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
CNT	25	24	25	21	21	20	18	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
UQ	25	24	25	21	21	20	18	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
f <sub>o</sub> F1	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
MEQ	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
CNT	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
UQ	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
f <sub>o</sub> E	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
MEQ	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
CNT	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
UQ	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
f <sub>o</sub> E	122	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
MEQ	122	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
CNT	122	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
UQ	122	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123

SHEEP 1.0 MC TO 18.0 MC IN 4 MINUTES.

NOVEMBER, 1961

FOURBES, BELGIUM

TABLE 50

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f <sub>o</sub> F2	34	34	33	33	30	25	44	63	66	72	80	81	72	73	65	60	46	42	35	34	31	33	33	33
MEQ	34	34	33	33	30	25	44	63	66	72	80	81	72	73	65	60	46	42	35	34	31	33	33	33
CNT	34	34	33	33	30	25	44	63	66	72	80	81	72	73	65	60	46	42	35	34	31	33	33	33
UQ	34	34	33	33	30	25	44	63	66	72	80	81	72	73	65	60	46	42	35	34	31	33	33	33
f <sub>o</sub> F2	29	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
MEQ	29	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
CNT	29	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
UQ	29	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
f <sub>o</sub> F1	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310
MEQ	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310
CNT	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310
UQ	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310
f <sub>o</sub> E	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
MEQ	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
CNT	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
UQ	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
f <sub>o</sub> E	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
MEQ	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
CNT	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
UQ	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126

SHEEP 1.0 MC TO 20.0 MC IN 3 MINUTES.

NOVEMBER, 1961

TABLE 41

GARCHY, FRANCE

TABLE 42

GRAB, AUSTRIA

TABLE 43

TABLE 44

TABLE 45

TABLE 46

TABLE 47

TABLE 48

TABLE 49

TABLE 50

TABLE 51

TABLE 52

TABLE 53

TABLE 54

TABLE 55

TABLE 56

TABLE 57

TABLE 58

TABLE 59

TABLE 60

TABLE 61

TABLE 62

TABLE 63

TABLE 64

TABLE 65

TABLE 66

TABLE 67

TABLE 68

TABLE 69

TABLE 70

TABLE 71

TABLE 72

TABLE 73

TABLE 74

TABLE 75

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TABLE 79

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TABLE 81

TABLE 82

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TABLE 84

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TABLE 93

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TABLE 95

TABLE 96

TABLE 97

TABLE 98

TABLE 99

TABLE 100

TABLE 101

TABLE 102

TABLE 103

TABLE 104

TABLE 105

TABLE 106

TABLE 107

TABLE 108

TABLE 109

TABLE 110

TABLE 111

TABLE 112

TABLE 113

TABLE 114

TABLE 115

TABLE 116

TABLE 117

TABLE 118

TABLE 119

TABLE 120

TABLE 121

TABLE 122

TABLE 123

TABLE 124

TABLE 125

TABLE 126

TABLE 127

TABLE 128

TABLE 129

TABLE 130

TABLE: 54

HOUR		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6 F2	MED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CNT	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
f6 F2	MED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CNT	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
f6 F	MED	235	265	275	250	218	238	238	245	240	235	220	210	230	240	240	240	240	240	210	210	225	220	230	200	200
	CNT	23	22	23	22	22	18	21	21	18	20	19	21	22	24	23	22	22	22	22	22	22	22	26	26	25
M3000IF2	MED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CNT	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
f6 F1	MED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CNT	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
f6 E	MED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CNT	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
f6 E	MED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	CNT	23	23	24	23	21	20	19	18	17	200	19	21	22	24	25	24	24	27	29	29	28	26	25	22	22

SHEEP 3-6 MC TO 25-3 MC IN 5 MINUTES, AUTOMATIC.  
 NOVEMBER, 1964

TABLE 5A

LEOPOLVILLE* CONGO																								1 4.4.5. 15.2E				TIME 0.0			
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23							
f6 F2																															
MED	27	284	50	53	40	54	86	70	U	U	U	U	114	121	124	126	122	116	U	U	132	130	117	71							
CNT	24	25	27	26	23	30	28	19	13	5	0	10	14	17	22	23	19	14	3	5	0	19	18	19							
LO																															
h' F2																															
MED																															
CNT																															
LO																															
h' F																															
MED																															
CNT																															
LO																															
M3000F2																															
MED	275	284	299	307	307	314	300	279	265	247	250	247	246	252	257	261	266	265	U	U	272	292	305	291							
CNT	24	25	27	26	23	30	28	19	13	7	0	10	15	18	21	23	16	14	4	4	6	19	18	17							
LO																															
f6 F1																															
MED									U	430	450	490		1	3	4	1														
CNT										6	10	11	3																		
f6 E																															
MED									U	250	300																				
CNT										4	13	16	4	8	2																
h' E																															
MED										132	117	115	100	110	110	110	115	115	U	U											
CNT										10	18	20	24	25	11	10															
LO																															
f6 E4																															
MED																															
CNT																															

SWEEP 1.0 MC TO 20.0 MC IN 7 SECONDS.\*

NOVEMBER, 1963

TABLE 53

[illegible]

TABLE 55

[illegible]

TABLE 57  
142.95, 147.51

HOBART, TASMANIA

[illegible]

SWEET 1.0 MC TO 16.0 MC IN 1 MINUTE 55 SECONDS\*

NOVEMBER, 1961

TABLE 58

151-75-57-8W1

FALKLAND IS.

[illegible]

SWEEP

NOVEMBER, 1961

TABLE 1

1740-7N, 940-3W)

RESOLUITE BAY, CANADA

[illegible]

• UNUSUAL IN 1950S

SEPTEMBER 1991

TABLE 6C  
169-3N, 53-5W1

COPENHAGEN, GREENLAND

[illegible]

•  $\text{SOH}^+ \rightleftharpoons \text{H}^+ + \text{SOH}$

T. A. J. • 235W31.01







TABLE

Year	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f2F2	36	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
MEF	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
CNT	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
UD	30	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
f2F2	36	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
MEF	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
CNT	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
UD	30	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
f2F2	36	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
MEF	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
CNT	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
UD	30	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
f2F2	36	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
MEF	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
CNT	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
UD	30	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
f2F2	36	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
MEF	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
CNT	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10	20	20	20
UD	30	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
f2F2	36	2	30	37	23	30	45	52	38	66	42	45	7	46	67	4	46	48	73	45	56	44	40	40
MEF	23	1	10	13	18	21	30	20	19	30	10	10	30	20	20	1	30	20	30	20	10			

TABLE A-1

[illegible][illegible]

TABLE 68

[illegible]

[illegible]

SEPTEMBER, 1961

HOUR		POLE STATION- ANTARCTICA												1990-05		POLE STATION- ANTARCTICA												1990-05	
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
f62	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
h'f2	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
h'f	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
M3000IF2	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
f61	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
f6	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
h'E	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						
f6A	MED	3.2	3.6	4.7	5.8	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9						
	U	1.9	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9						
	U	4.9	4.9	5.9	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.9	22.9	23.9							
	LO	3.1	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7						

SEPTEMBER, 1961

[illegible]

SEPTEMBER, 1961

[illegible][illegible]

73

FRANKFURT/MAIN, GERMANY

$$13.65$$

DE WILT, NETHERLANDS

5.251

TABLE 74

[illegible]

SWEEP 0.5 MC TO 10.0 MC IN 25 SECONDS.

AUGUST, 1961

[illegible]

TABLE 1.  $\Sigma$  M<sub>2</sub> T<sub>2</sub> IN 1 MINUTE.

PARI - FRANCE

140-141 252

[illegible]

100

1

TABLE 76

17.40N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	74	73	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
16F	74	73	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
16F1	74	73	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
16E	74	73	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
16E1	74	73	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

AUGUST, 1961

TABLE 80

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

13.41S, 18.31E

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	26	27	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
16F	26	27	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
16F1	26	27	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
16E	26	27	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
16E1	26	27	28	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

AUGUST, 1961

TABLE 77

17.40N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

18.00N, 34.00E

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	52	48	45	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4
16F	52	48	45	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4
16F1	52	48	45	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4
16E	52	48	45	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4
16E1	52	48	45	44	42	40	38	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6	4

AUGUST, 1961

TABLE 79

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

12.61S, 28.41E

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
16F	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
16F1	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
16E	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5
16E1	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5

AUGUST, 1961

TABLE 82  
LEUPOLOVILLE, OMAN  
14455, 1542E

TIME 0-0

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2 MED CNT UO LO	56 48 35 25 10 11 8 9	21 37 65 90 9 21 9 18	100 100 104 104 114 113 111 125	117 113 124 18 13 10 1	55 46 41 44 5 7 9 6																			
f6F2 MED CNT UO LO																								
f6F MED CNT UO LO																								
M3000F2 MED CNT UO LO	301 308 299 284 10 11 8 9	315 295 312 307 9 21 7 18	292 287 283 277 20 18 18 15	273 264 260 254 18 13 22 21	280 284 301 18 13 10 1																			
f6F1 MED CNT UO LO																								
f6E MED CNT UO LO																								
f6E MED CNT UO LO																								
f6E4 MED CNT UO LO																								

SHEEP 1.0 MC TO 20.0 MC IN 7 SECONDS.

JULY, 1991

TABLE 81  
FALLAND 15.  
(51.75, 57.84)

TIME 00-00

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2 MED CNT UO LO	29 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24
nF2 MED CNT UO LO																								
nF MED CNT UO LO																								
M3000F2 MED CNT UO LO	29 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24	30 30 10 30 22 22 23 24
f6F1 MED CNT UO LO																								
f6E MED CNT UO LO																								
nE MED CNT UO LO																								
f6E4 MED CNT UO LO																								

SHEEP

AUGUST, 1991

TABLE 84  
TANARIVE, MALAGASY REPUBLIC  
118.85, 47.5E

TIME 45-0E

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2 MED CNT UO LO	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9
nF2 MED CNT UO LO																								
nF MED CNT UO LO																								
M3000F2 MED CNT UO LO	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9	24 24 22 22 10 11 8 9
f6F1 MED CNT UO LO																								
f6E MED CNT UO LO																								
nE MED CNT UO LO																								
f6E4 MED CNT UO LO																								

SHEEP 1.0 MC TO 17.0 MC.

AUGUST, 1991

TABLE 83  
TAHITI, SOCIETY IS.  
(17.75, 149.34)

TIME 150-0W

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	MED	56	52	42	27	28	33	62	87	100	74	90	31	92	-0	94	59	60	92	80	70	64	60	53	
	CNT	26	23	24	25	22	24	26	29	30	31	31	31	31	31	31	31	28	28	25	23	21	19		
	UO																								
	LO																								
f6F2	MED								255	255	250	240		235	270	270	275	270	240						
	CNT								25	30	28	31		30	31	29	27	26	9						
	UO																								
	LO																								
f6F	MED	245	240	240	235	230	245	275	245	232	232	214	200	200	200	210	230	240	240	225	215	225	245	240	248
	CNT	31	31	30	31	27	29	31	31	30	30	29	27	26	28	24	25	28	31	30	31	29	28	31	30
	UO																								
	LO																								
M3000F2	MED	288	280	300	330	322	298	290	335	335	340	340	340	330	330	315	315	315	320	320	270	295	300	304	294
	CNT	24	22	22	23	22	24	21	28	29	30	30	31	31	31	30	29	28	31	28	27	25	22	21	19
	UO																								
	LO																								
f6F1	MED									U	640	640	500	487	476	470	470								
	CNT									1			3	2	16	3									
	UO																								
	LO																								
f6E	MED																								
	CNT	9	7	11	8	15	20	29	28	28	28	21	20	340	150	335	308	270	200	10	14	8	8	8	8
	UO																								
	LO																								
f6E	MED																								
	CNT	9	7	11	8	15	20	29	28	28	28	21	20	150	150	154	125	117	105	51	15	8	8	8	8
	UO																								
	LO																								
f6E4	MED																								
	CNT	28	24	21	24	24	25	29	31	31	33	36	38	37	36	40	37	32	35	32	31	31	31	30	24
	UO																								
	LO																								

SHEEP 1.0 MC TO 17.0 MC.

AUGUST, 1991





TABLE

POPUL VILL, 2.11.

EPOLOVILLE, CONGO

[illegible]

SWEEP : 0 MC TO 20.0 MC IN 7 SECONDS.

MAY, 1961

TABLE 9:

WARSAW, POLAND

(52.2N, 21.2E)

TIME 15.0E

[illegible]

SWEEP 1.0 MC Y 10.0 MC IN 2.5 SEC.

JAF, Vol. 1

TABLE 9:

OKINAWA I. •

126.3N, 127.8E)

TIME 135.0E

[illegible]

DECEMBER, 1961

TABLE 96

1000



TABLE 98

(149+25), 65.3hr

TELESTAR ARGENTINA

TIME 50.0H

TABLE 97

(149+25), 65.3hr

TELESTAR ARGENTINA

TIME 50.0H

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT	37 38 37 37 36 41 36 37 37 36 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 14 13 13 13 12 13 10 12 5 7 7 8 3 6 7 12 7 3 11 9 11 10 13 15	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
nF2	MED CNT	240 240	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
nF	MED CNT	340 340	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
M3000IF2	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
f6F1	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
f6E	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
nE	MED CNT	140 140	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
f6Ea	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD

SWEEP 14.3 MC TO 18.0 MC IN 30 SECONDS.

AUGUST, 1960

SWEEP 14.3 MC TO 18.0 MC IN 30 SECONDS.

AUGUST, 1960

TABLE 99

(149+25), 65.3hr

TELESTAR ARGENTINA

TIME 50.0H

TABLE 95

(149+25), 65.3hr

TELESTAR ARGENTINA

TIME 50.0H

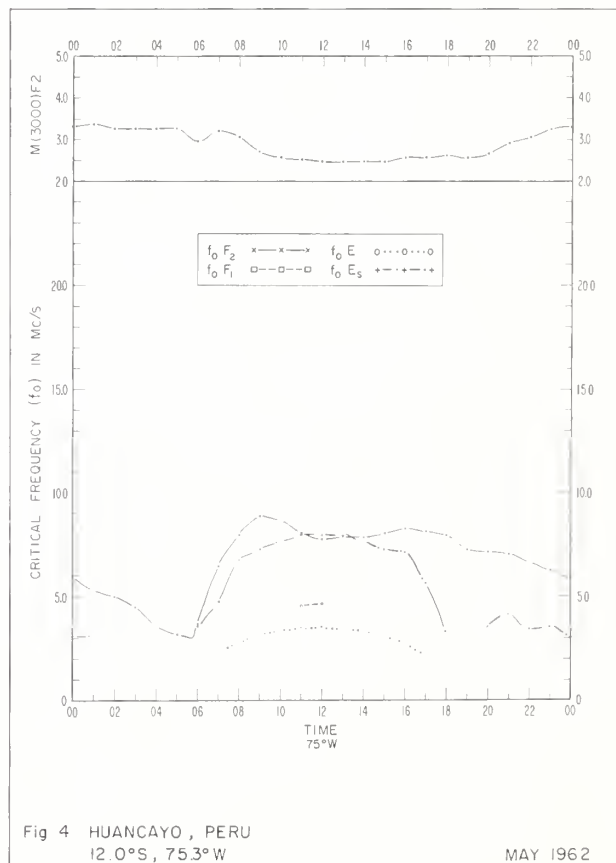
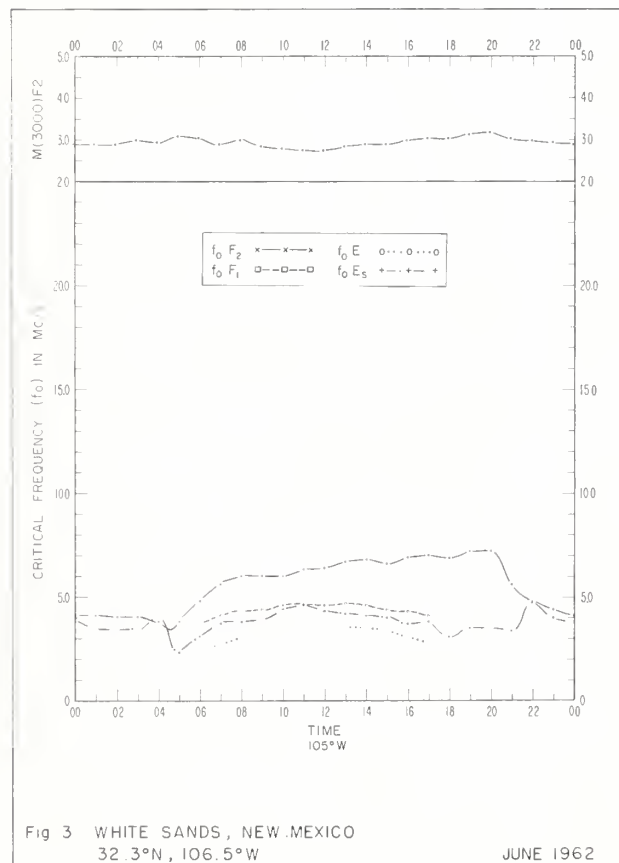
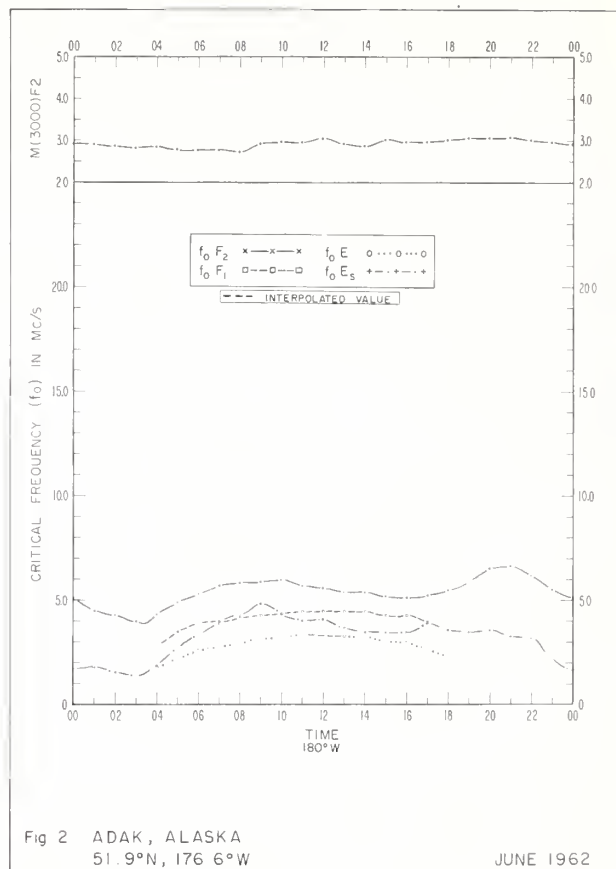
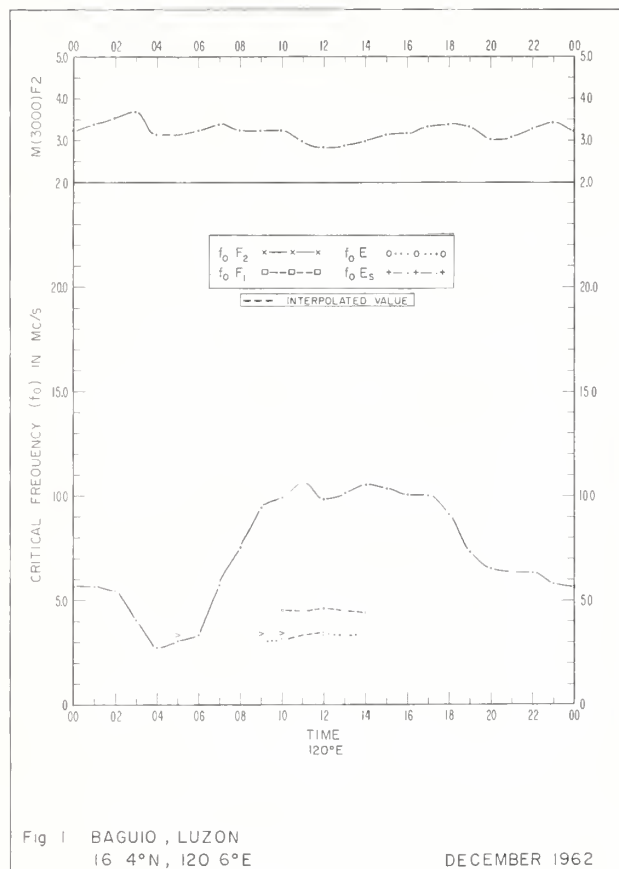
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT	35 37 37 37 36 41 36 37 37 36 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14 14 13 13 13 12 13 10 12 5 7 7 8 3 6 7 12 7 3 11 9 11 10 13 15	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
nF2	MED CNT	240 240	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
nF	MED CNT	340 340	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
M3000IF2	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
f6F1	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
f6E	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
nE	MED CNT	140 140	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD
f6Ea	MED CNT	250 250	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD	UD

SWEEP 14.3 MC TO 18.0 MC IN 30 SECONDS.

AUGUST, 1960

SWEEP 14.3 MC TO 18.0 MC IN 30 SECONDS.

AUGUST, 1960



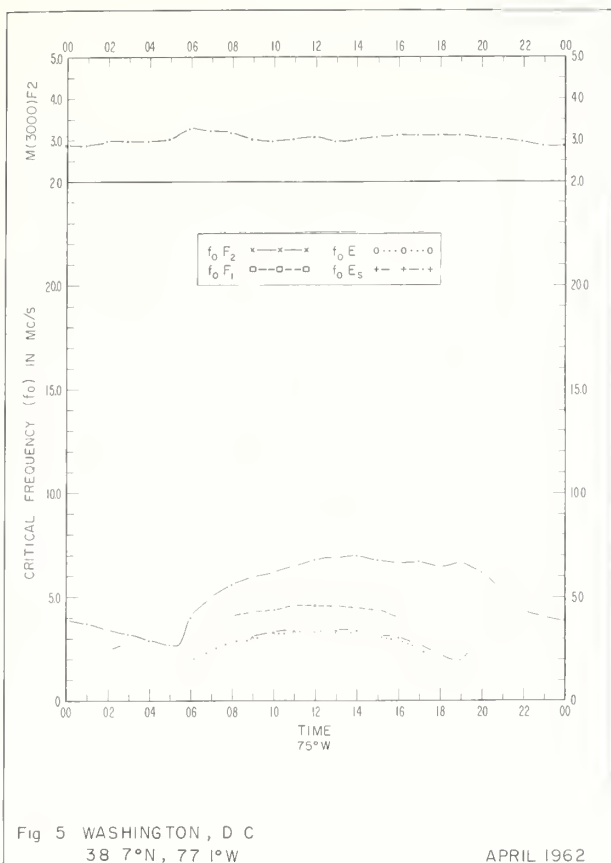


Fig 5 WASHINGTON, D C  
38.7°N, 77.1°W

APRIL 1962

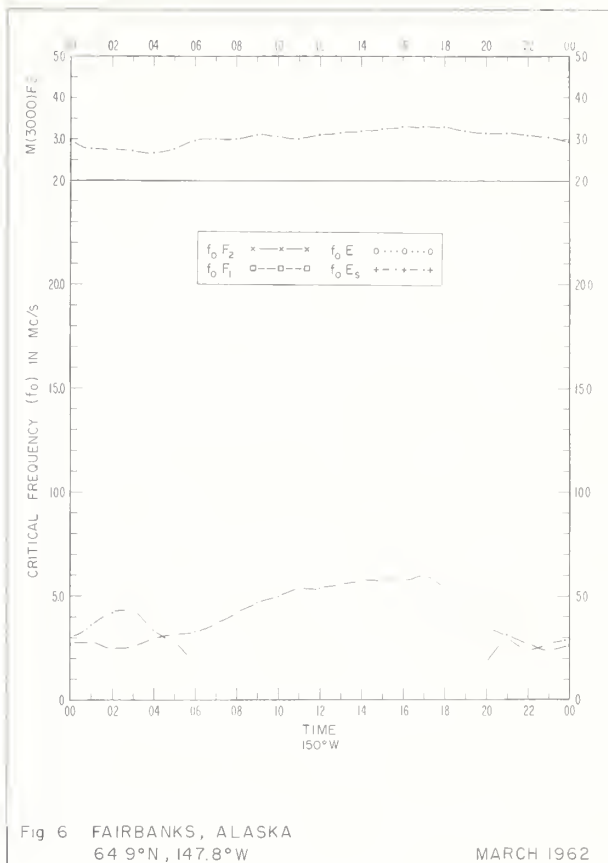


Fig 6 FAIRBANKS, ALASKA  
64.9°N, 147.8°W

MARCH 1962

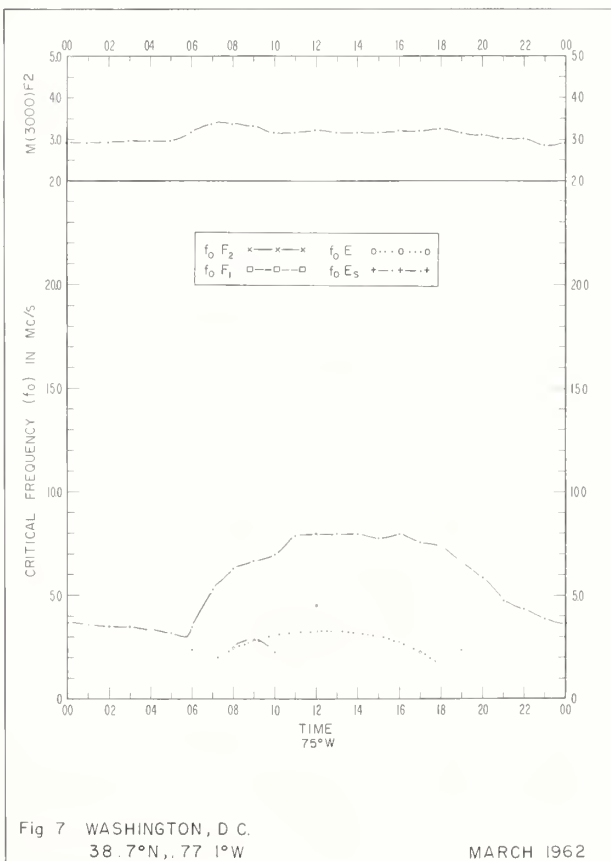


Fig 7 WASHINGTON, D C  
38.7°N, 77.1°W

MARCH 1962

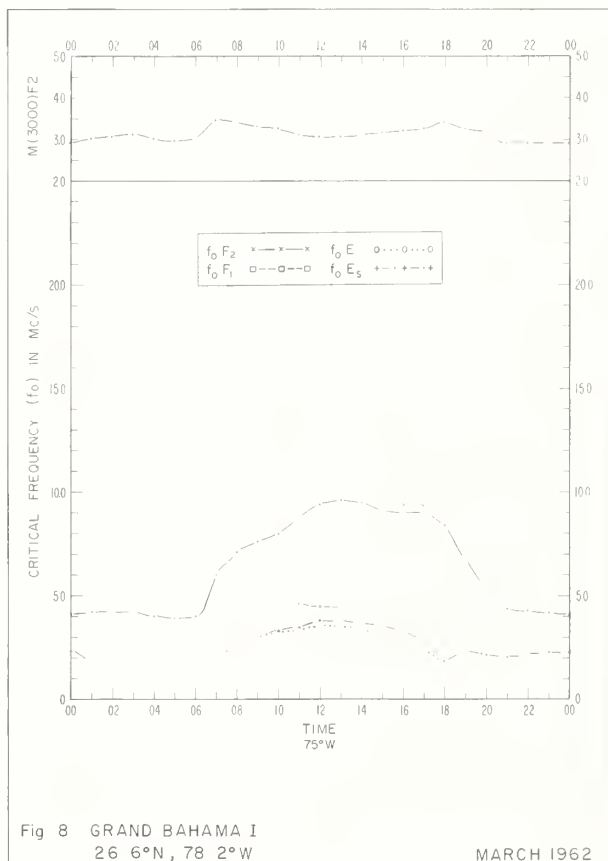
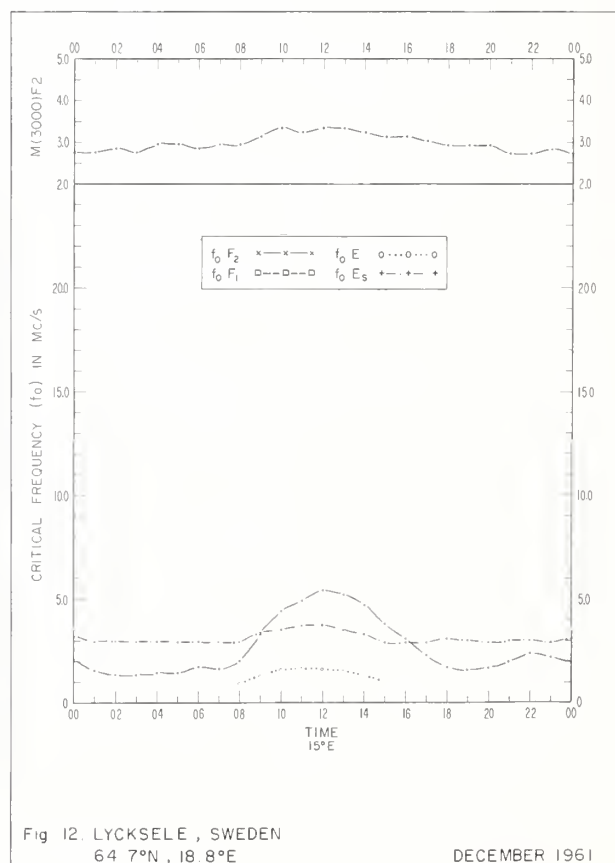
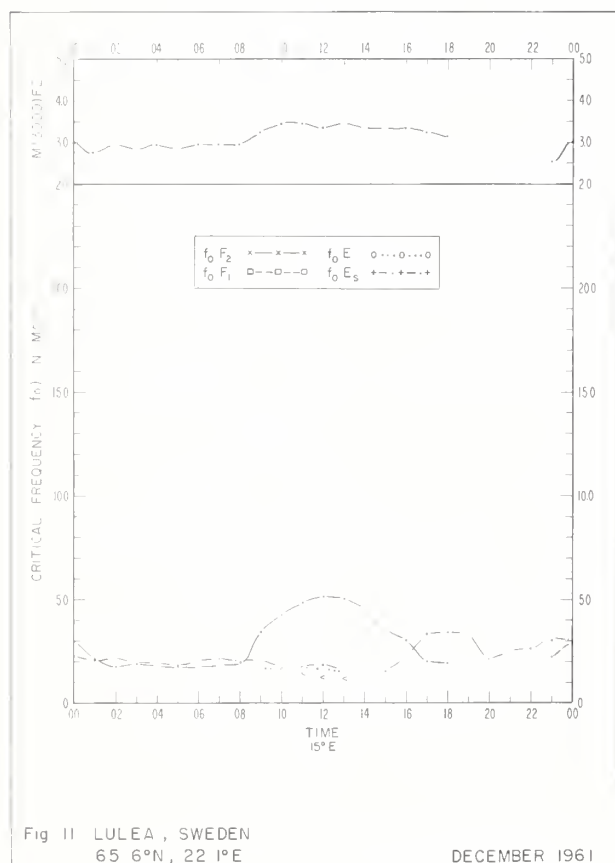
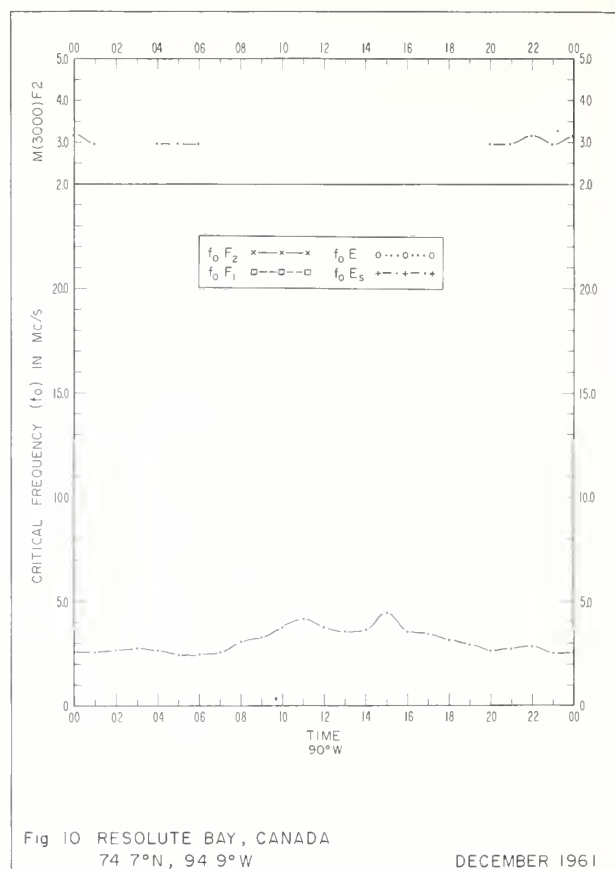
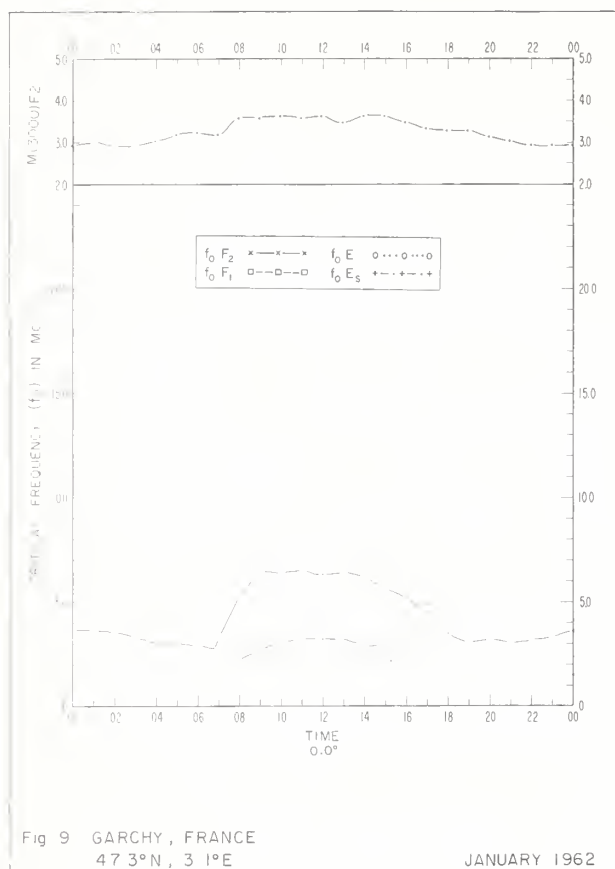


Fig 8 GRAND BAHAMA I  
26.6°N, 78.2°W

MARCH 1962



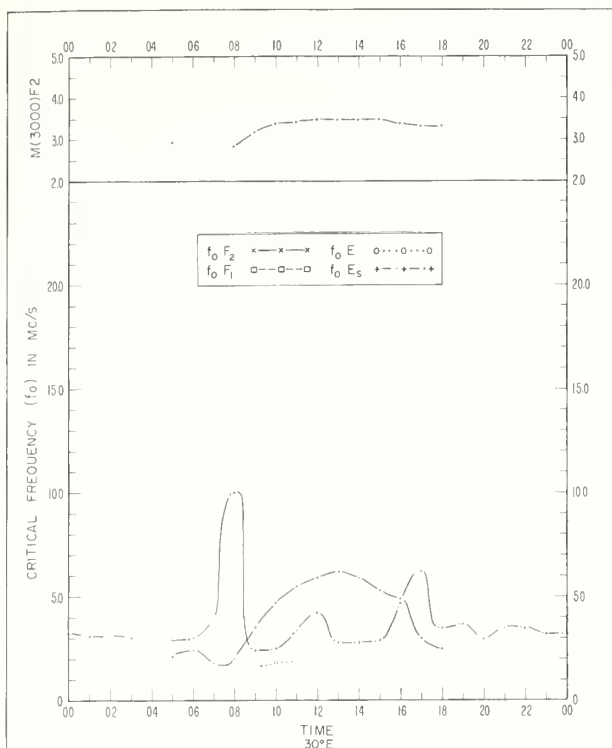


Fig. 13. NURMIJARVI, FINLAND  
60.5°N, 24.6°E

DECEMBER 1961

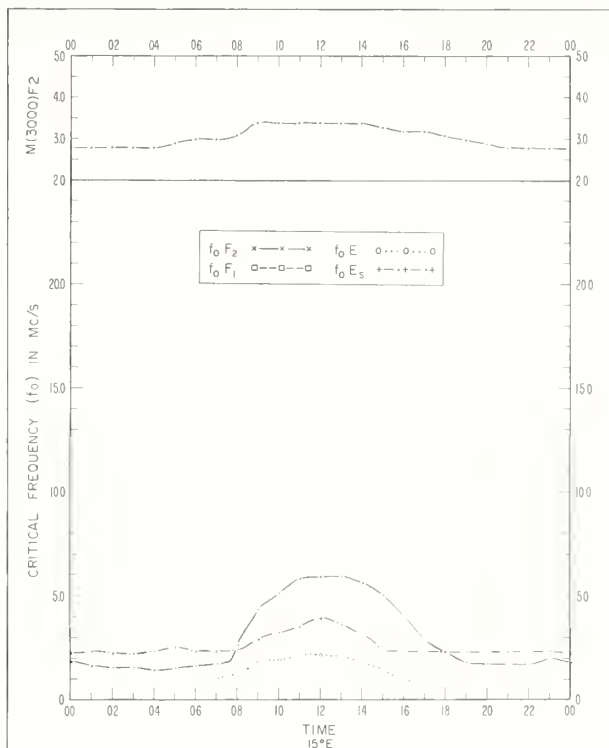


Fig. 14. UPPSALA, SWEDEN  
59.8°N, 17.6°E

DECEMBER 1961

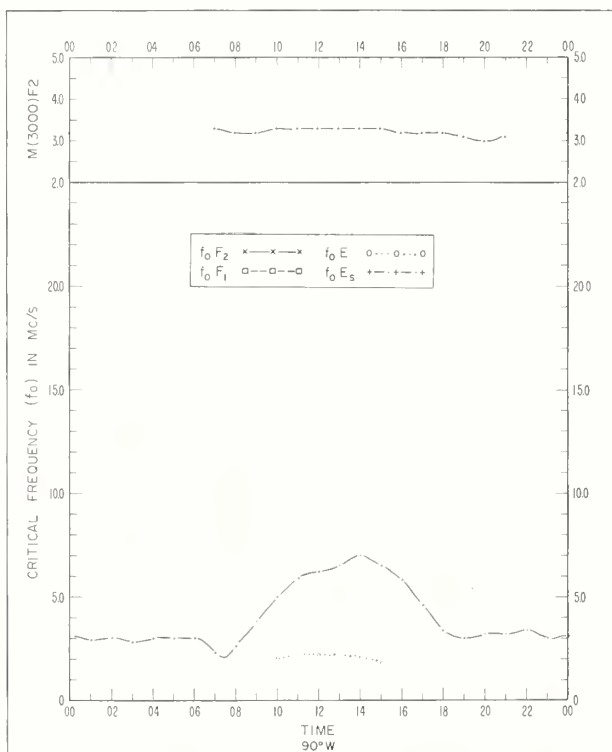


Fig. 15. CHURCHILL, CANADA  
58.8°N, 94.2°W

DECEMBER 1961

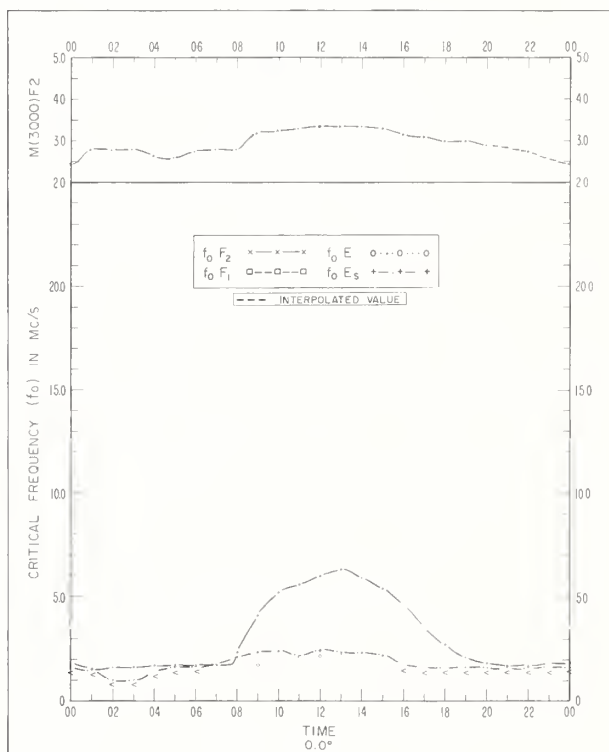


Fig. 16. INVERNESS, SCOTLAND  
57.4°N, 4.2°W

DECEMBER 1961

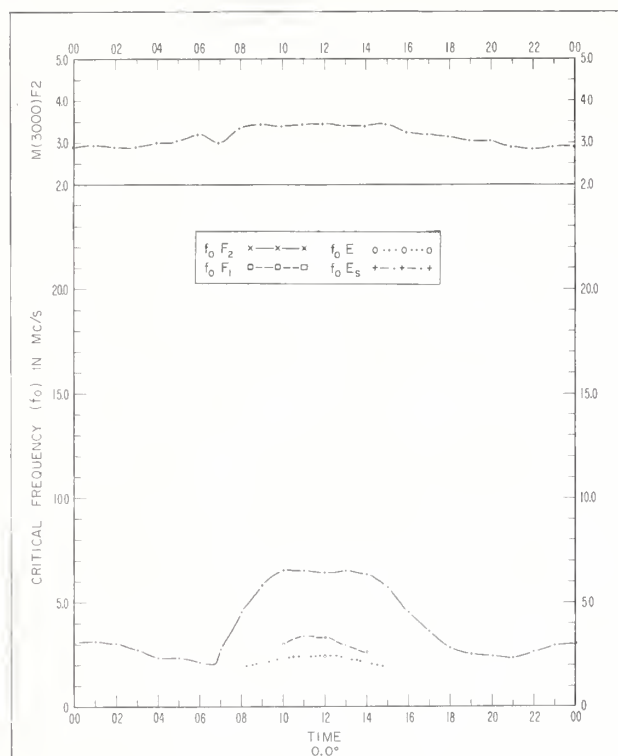


Fig 17 De BILT, NETHERLANDS  
52 1°N, 5.2°E

DECEMBER 1961

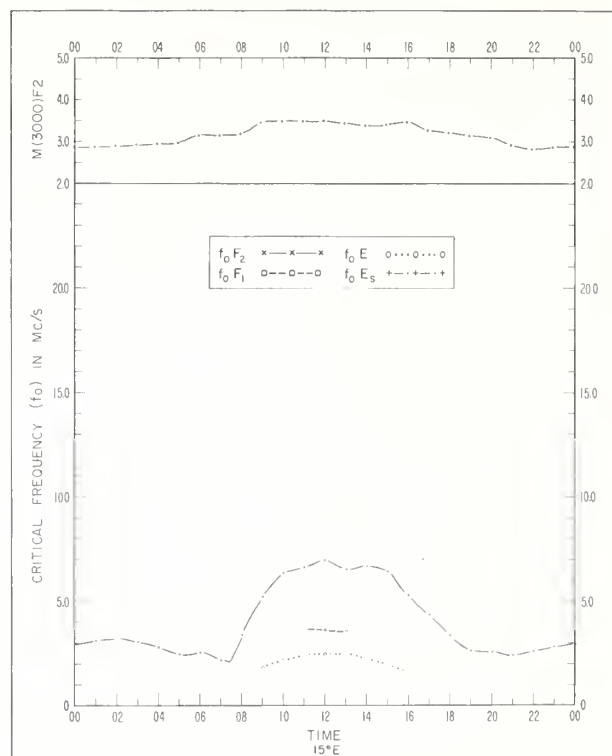


Fig 18. LINDAU/HARZ, GERMANY  
51 6°N, 10 1°E

DECEMBER 1961

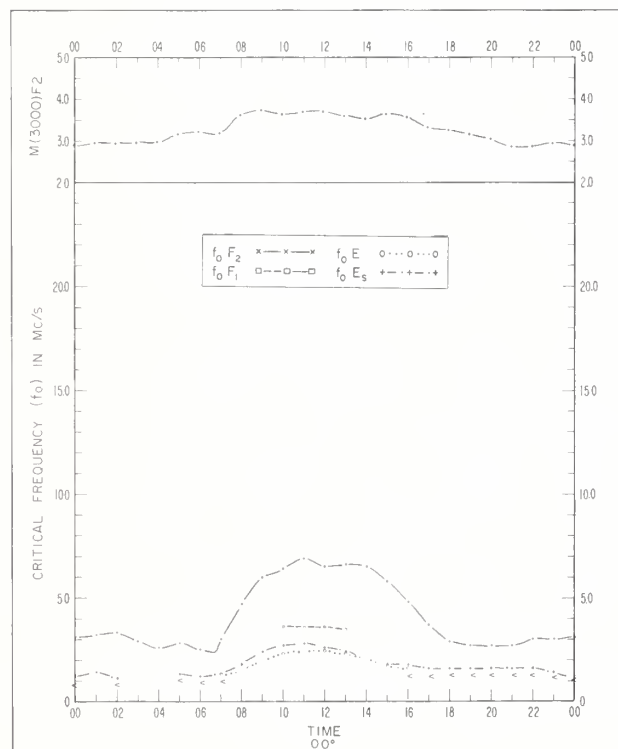


Fig 19 DOURBES, BELGIUM  
50 1°N, 4 6°E

DECEMBER 1961

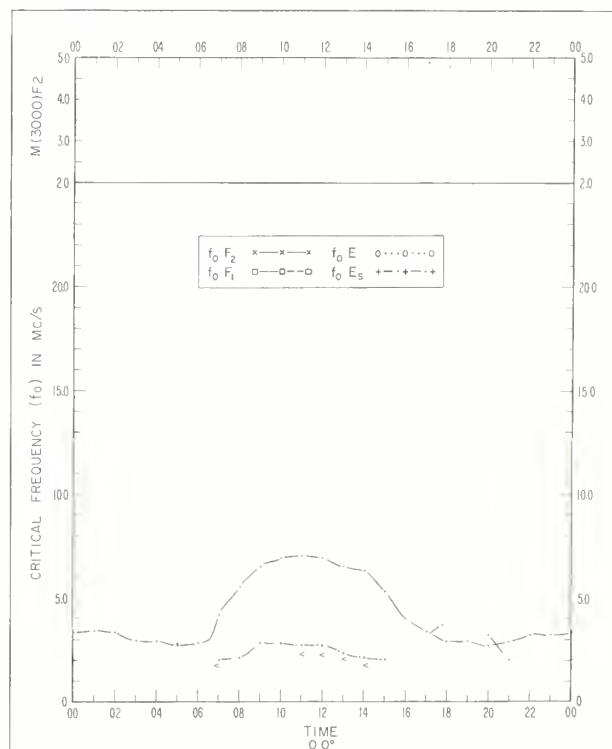


Fig.20. PRUHONICE, CZECHOSLOVAKIA  
50 0°N, 14 6°E

DECEMBER 1961

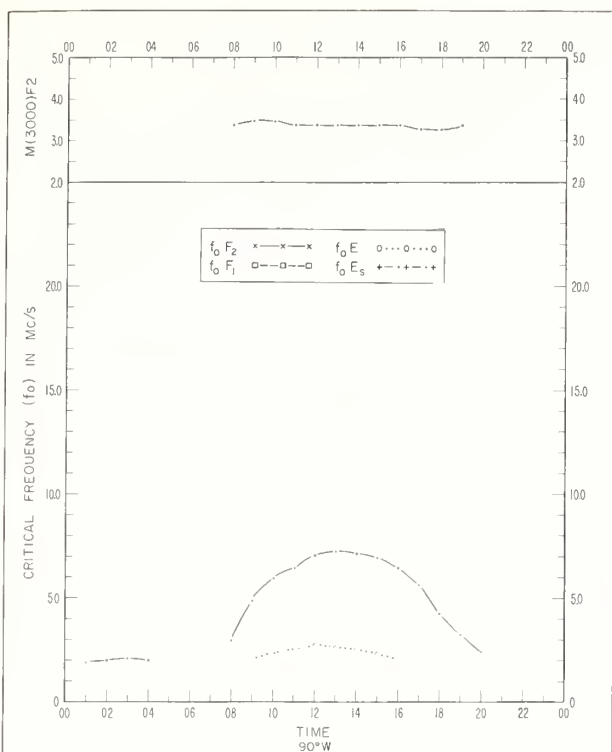


Fig 21. WINNIPEG, CANADA  
49.9°N, 97.4°W

DECEMBER 1961

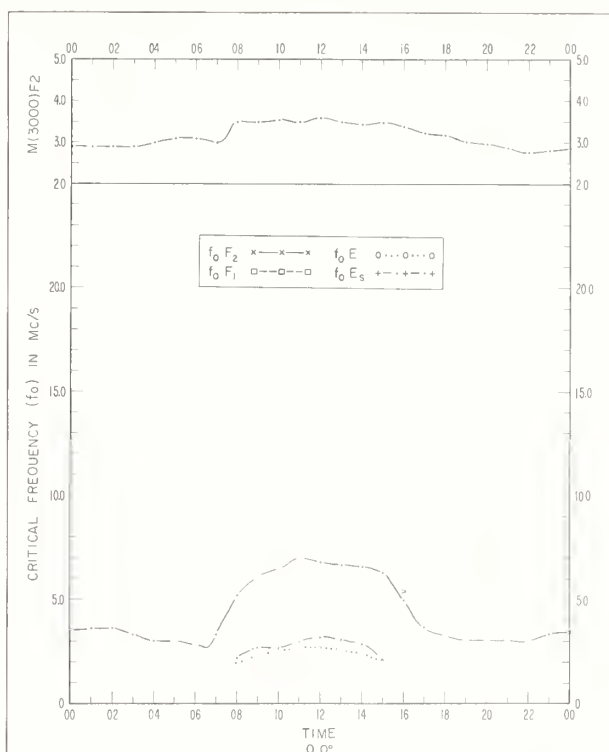


Fig 22 GARCHY, FRANCE  
47.3°N, 3.1°E

DECEMBER 1961

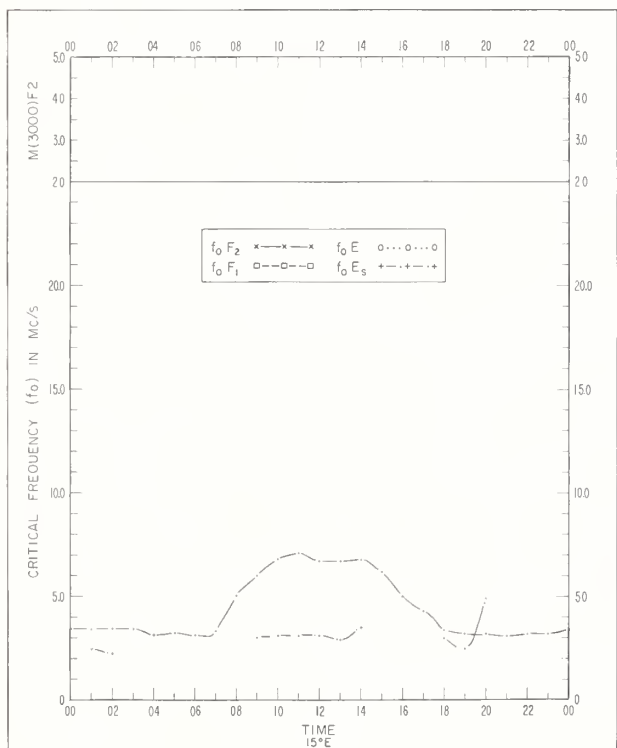


Fig. 23. GRAZ, AUSTRIA  
47.1°N, 15.5°E

DECEMBER 1961

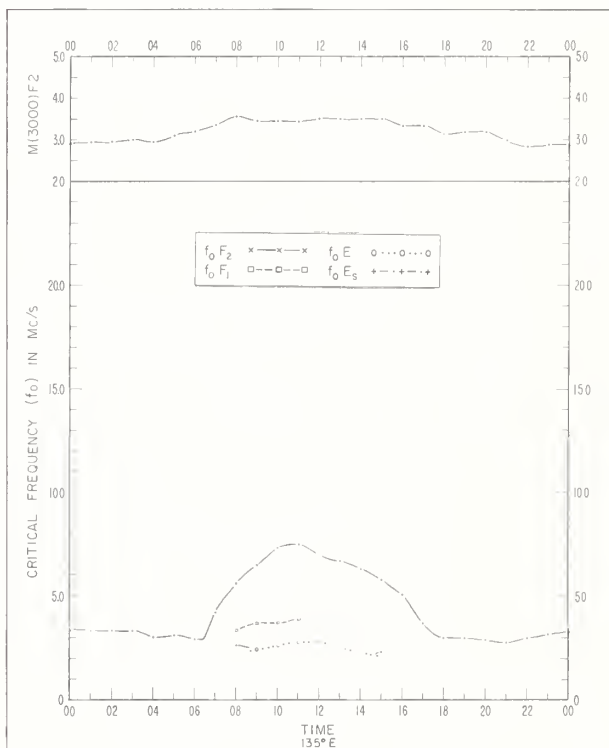
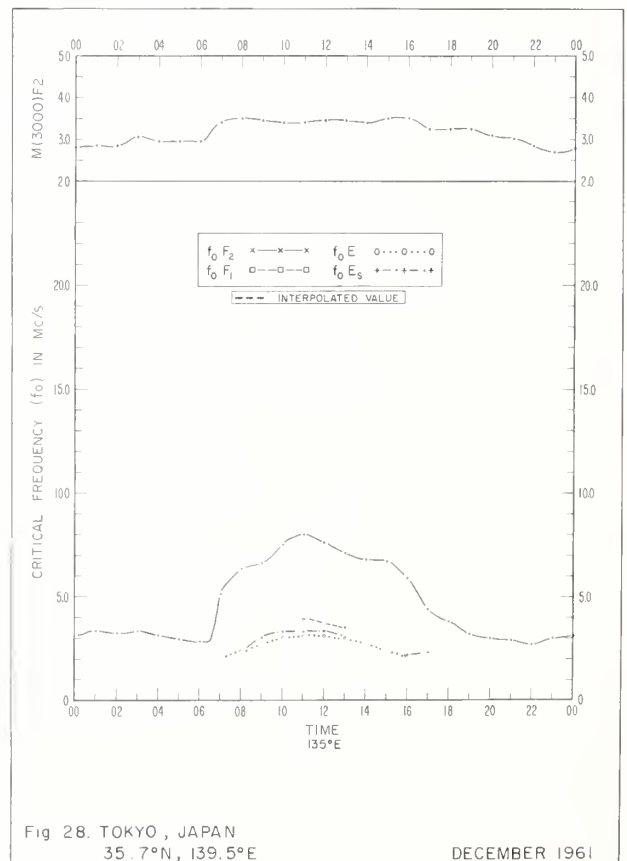
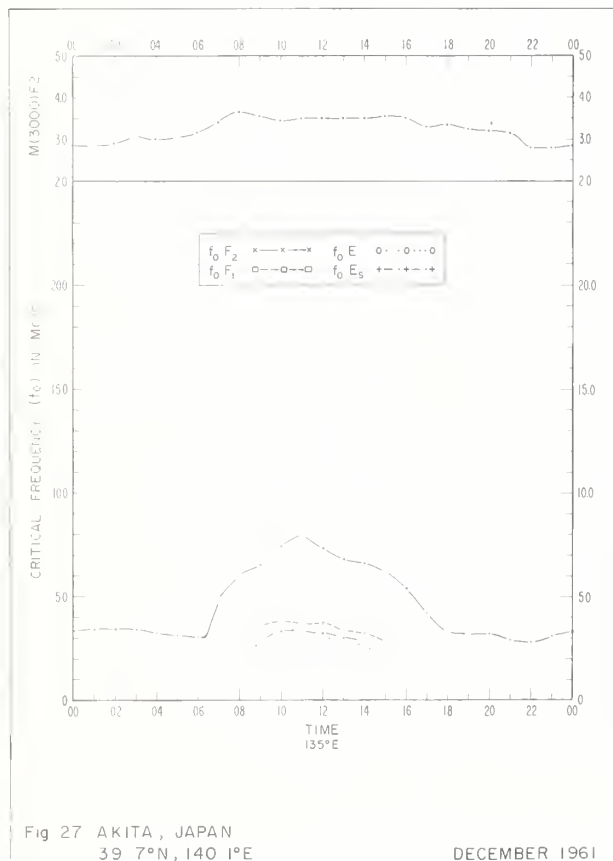
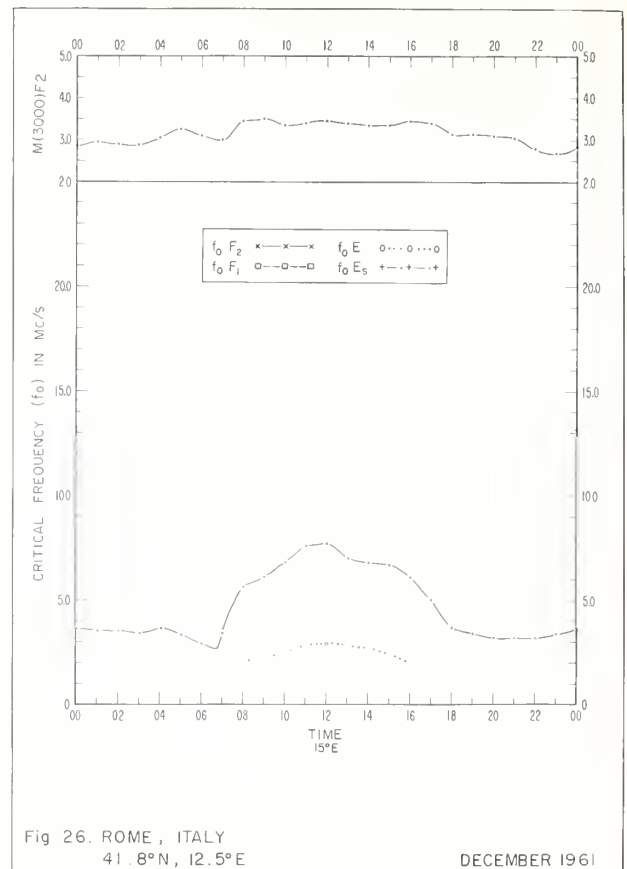
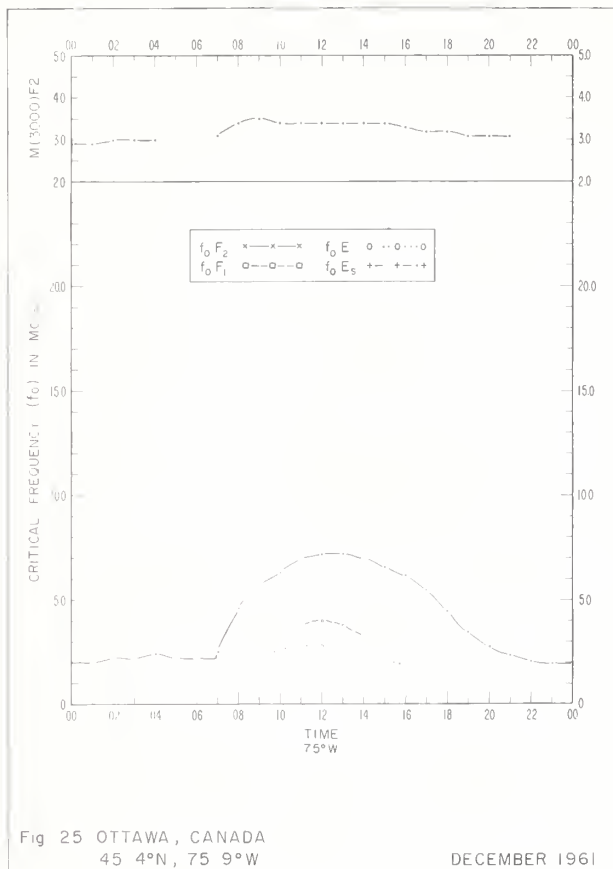
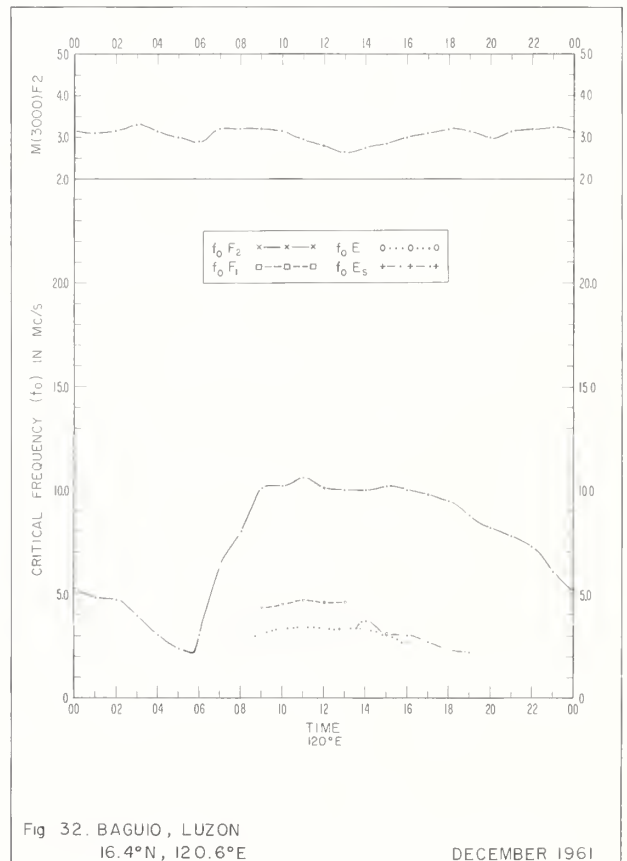
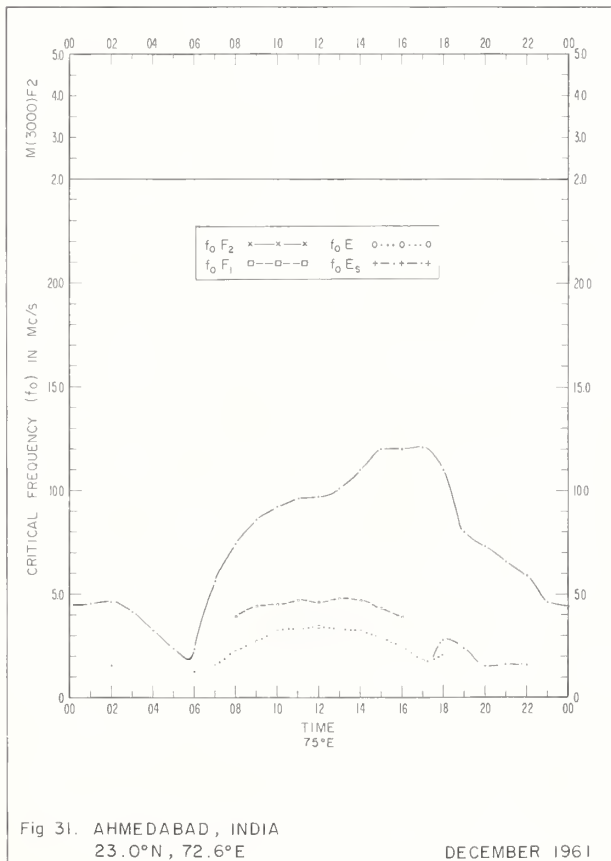
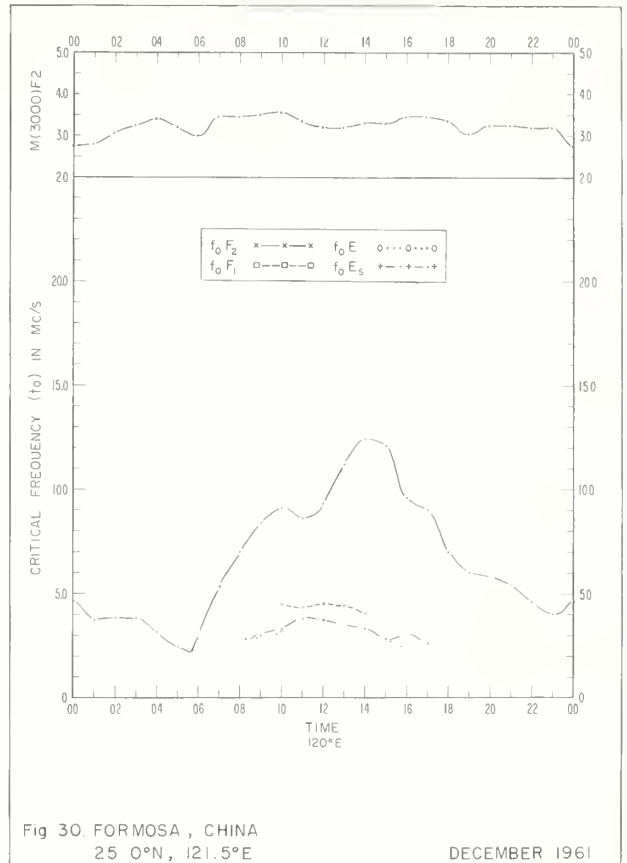
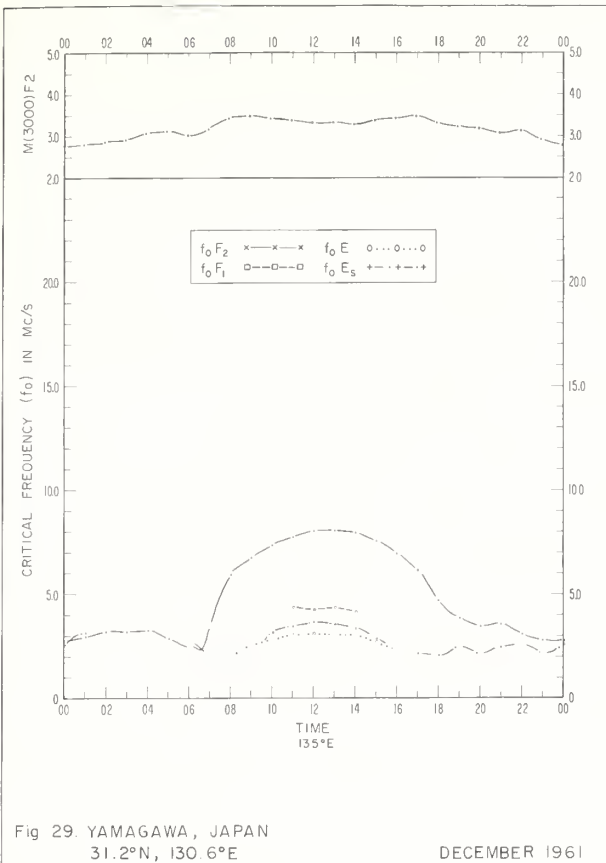


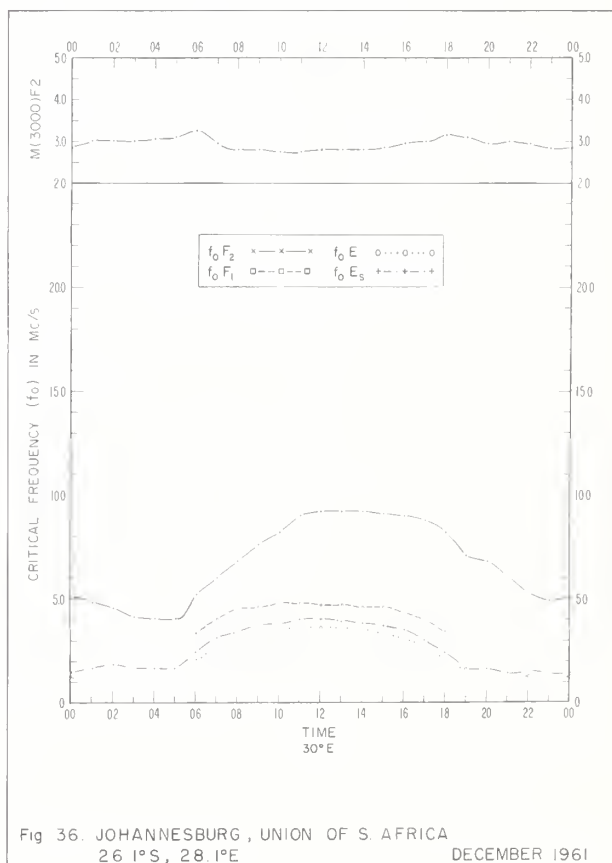
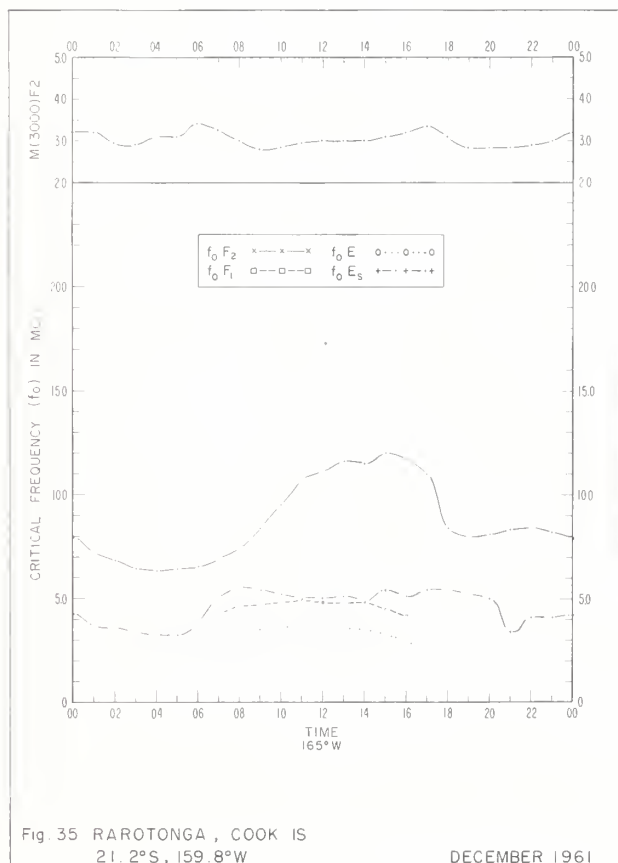
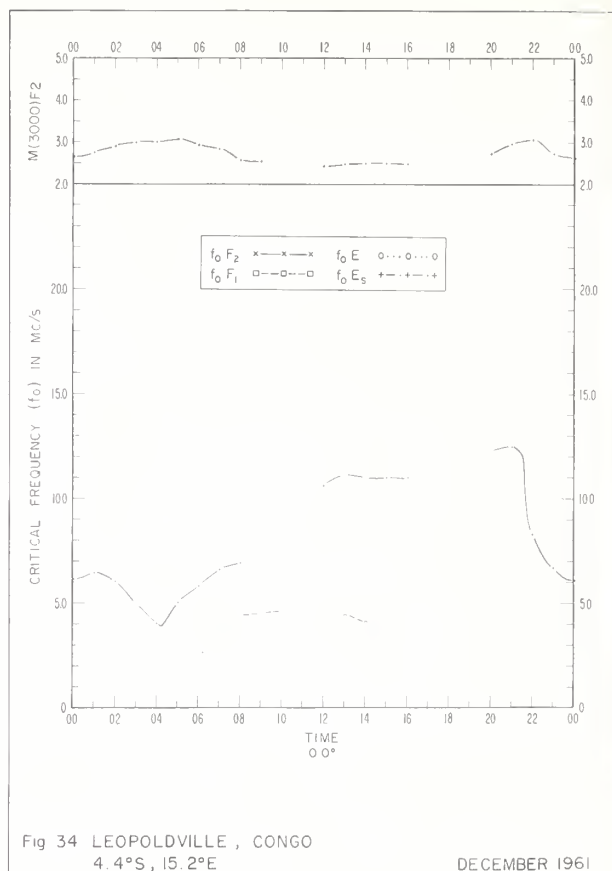
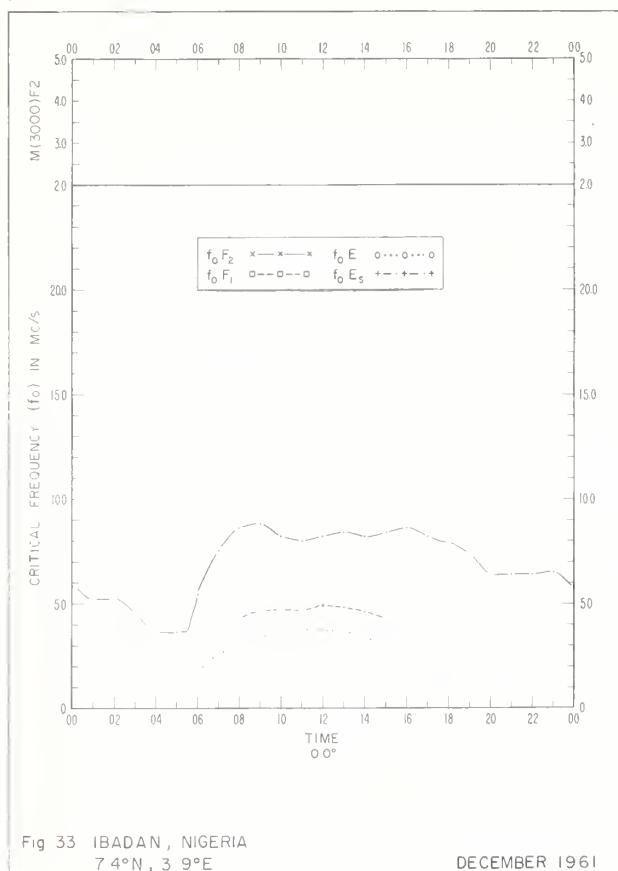
Fig 24 WAKKANAI, JAPAN  
45.4°N, 141.7°E

DECEMBER 1961









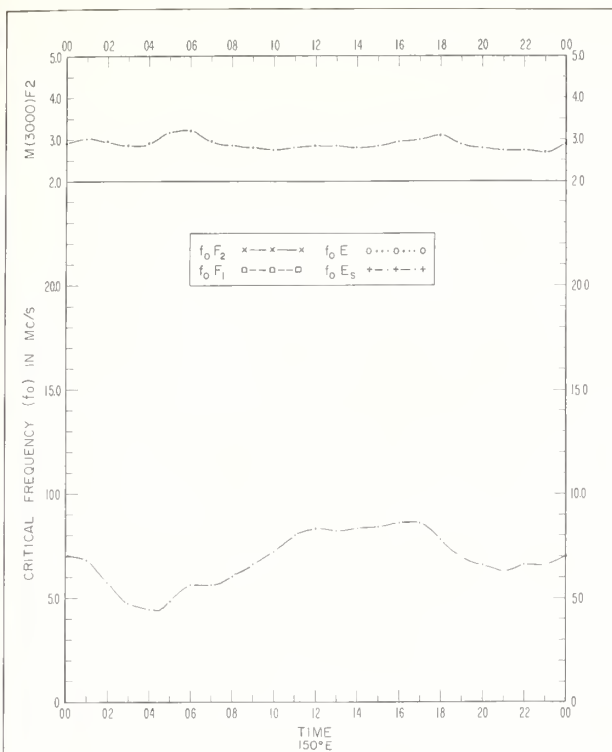


Fig 37. BRISBANE, AUSTRALIA  
27 5°S, 152.9°E

DECEMBER 1961

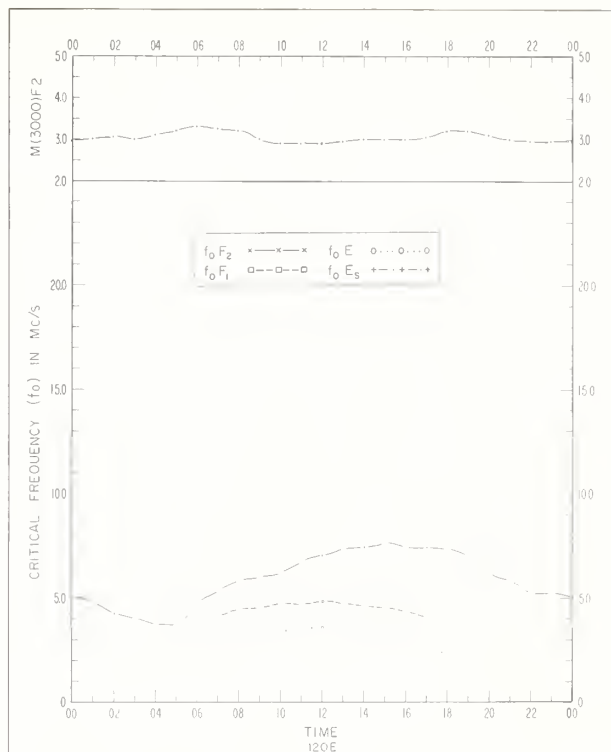


Fig 38 MUNDARING, WESTERN AUSTRALIA  
32 0°S, 116.2°E

DECEMBER 1961

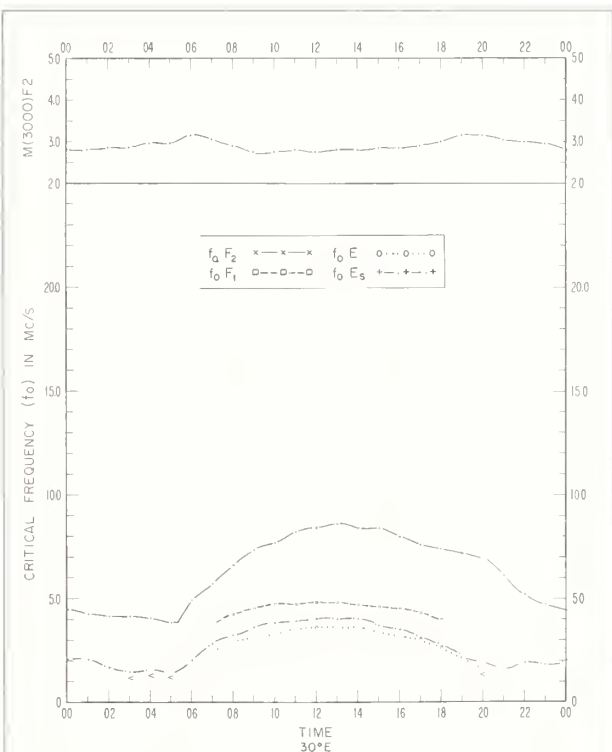


Fig 39. CAPETOWN, UNION OF S. AFRICA  
34.1°S, 18.3°E

DECEMBER 1961

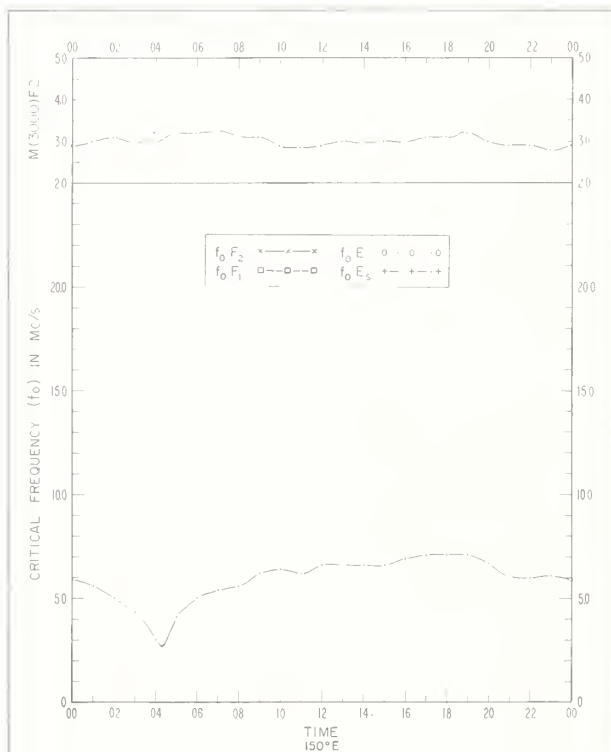
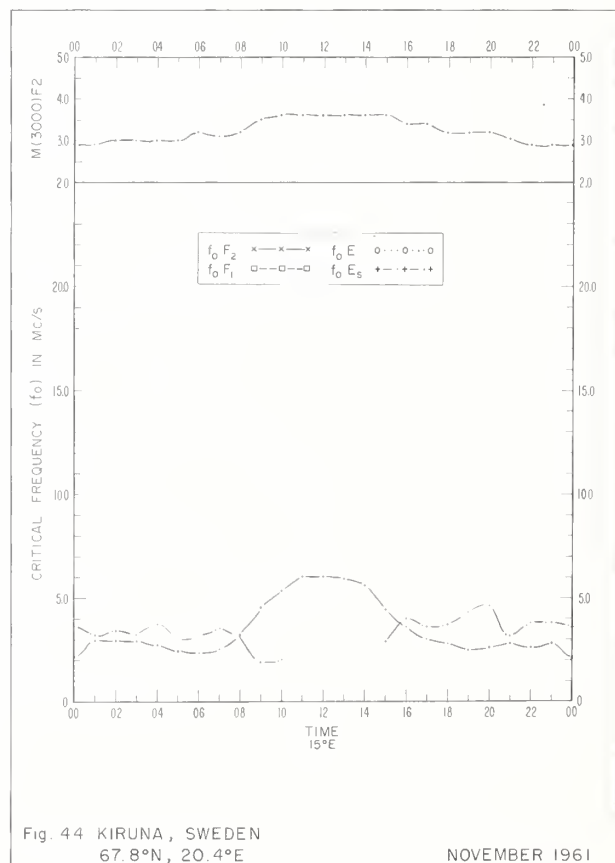
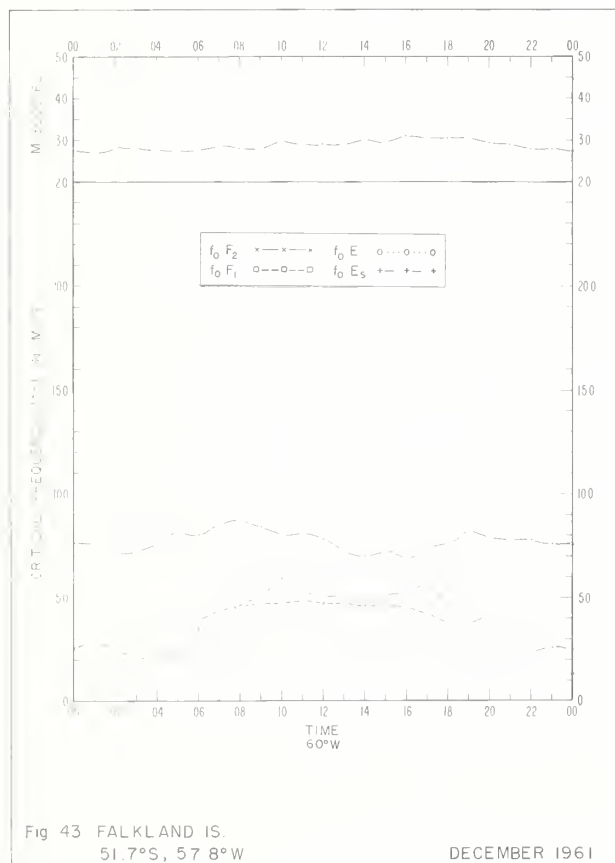
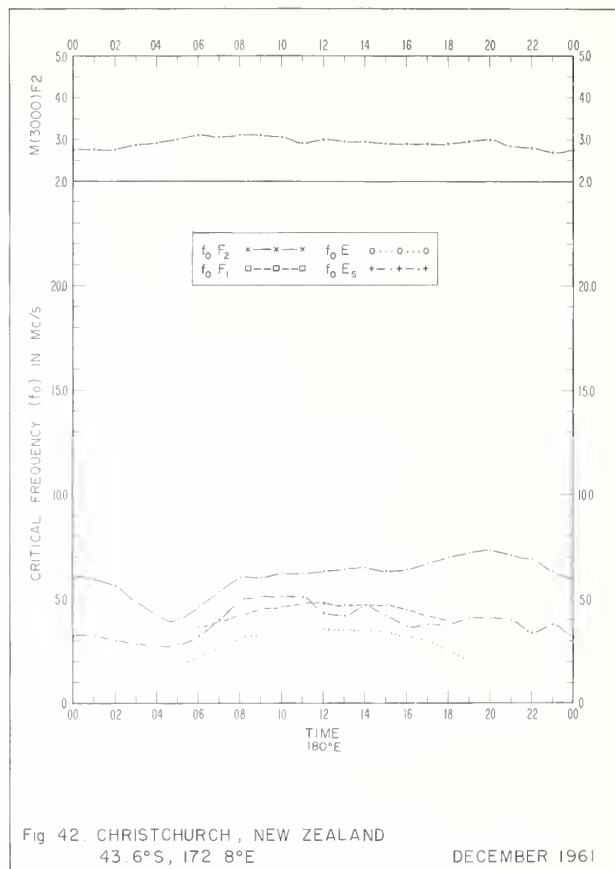
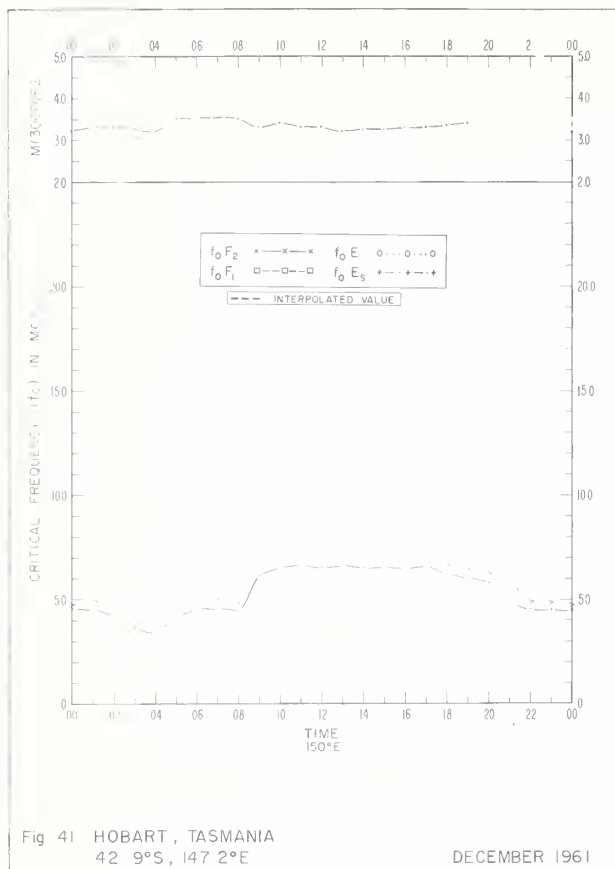


Fig 40. CANBERRA, AUSTRALIA  
35.3°S, 149.0°E

DECEMBER 1961



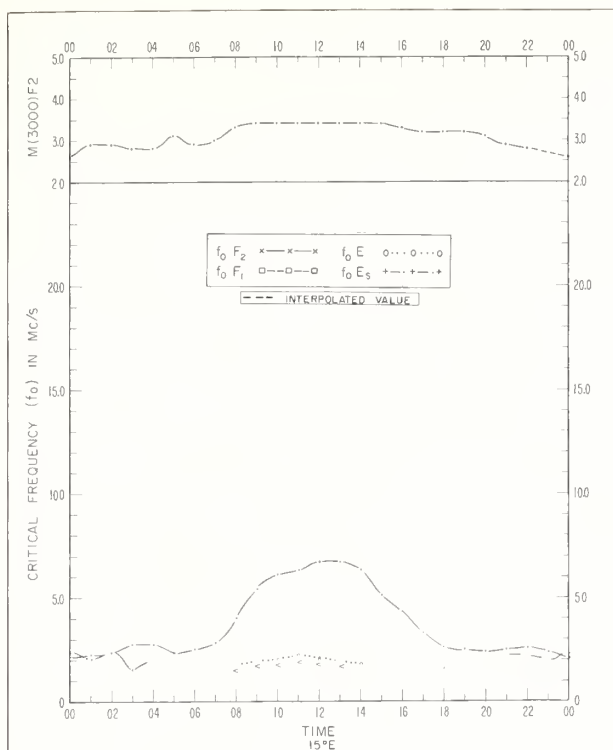


Fig 45. LULEA, SWEDEN  
65.6°N, 22.1°E

NOVEMBER 1961

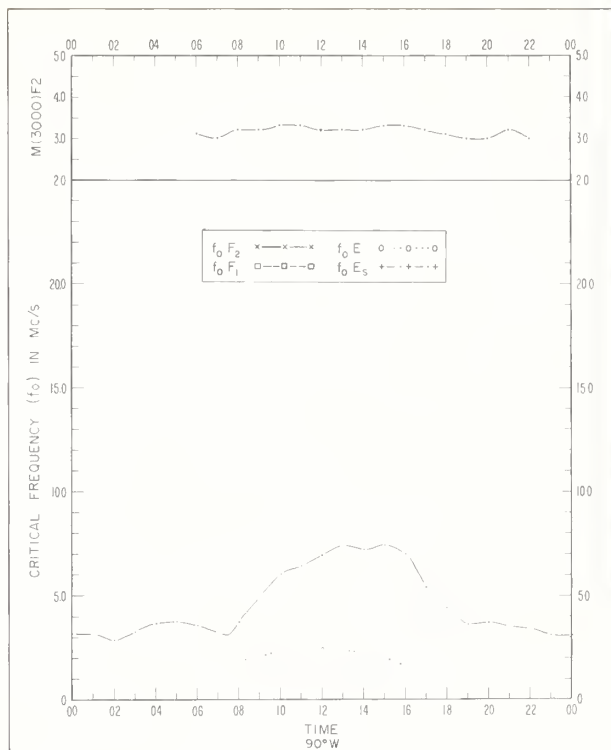


Fig 46. CHURCHILL, CANADA  
58.8°N, 94.2°W

NOVEMBER 1961

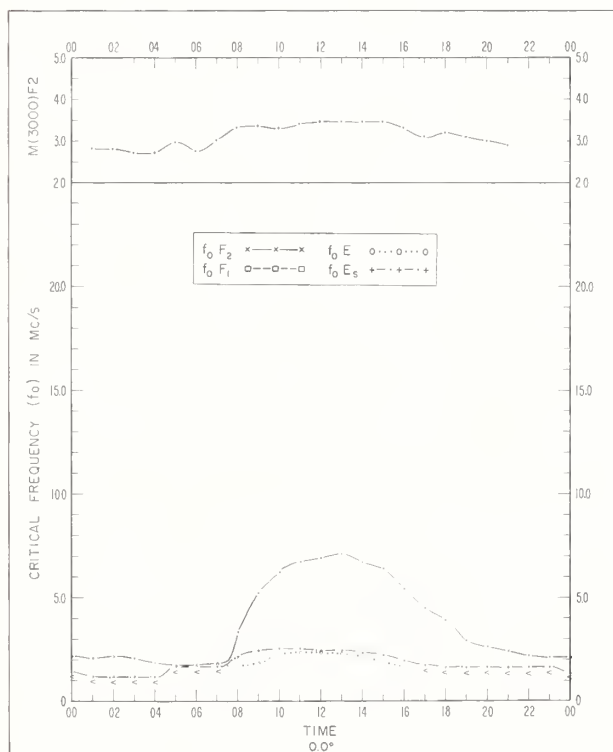


Fig. 47. INVERNESS, SCOTLAND  
57.4°N, 4.2°W

NOVEMBER 1961

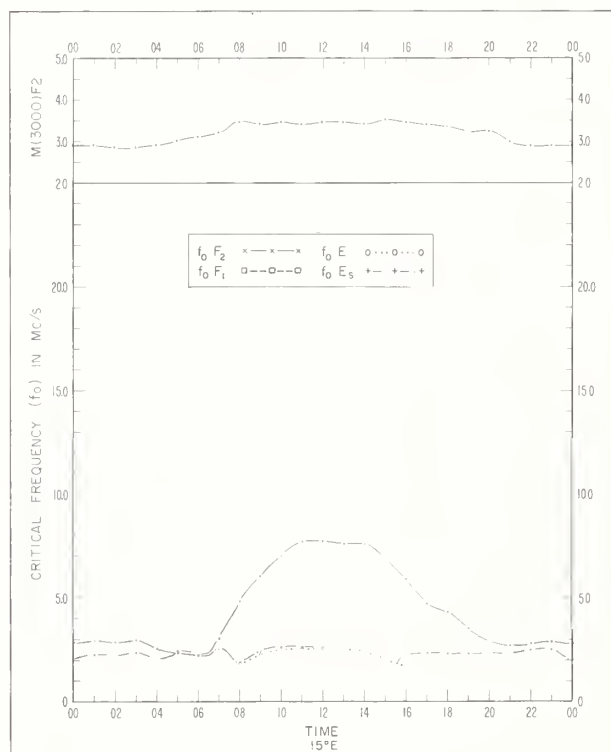
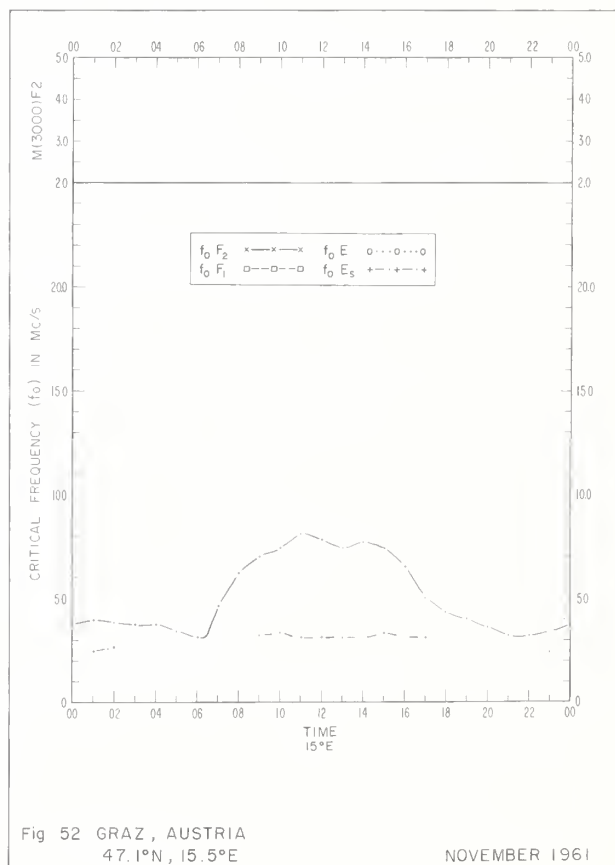
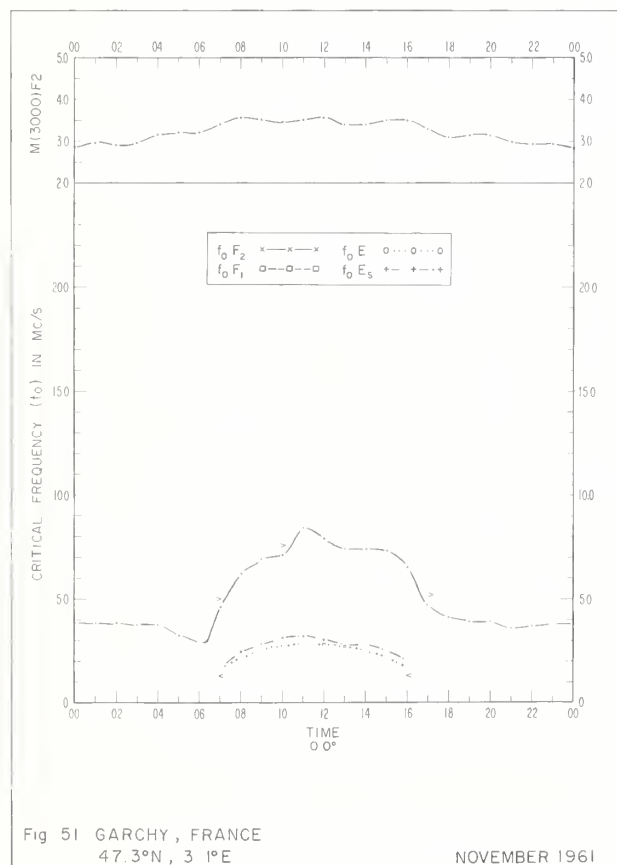
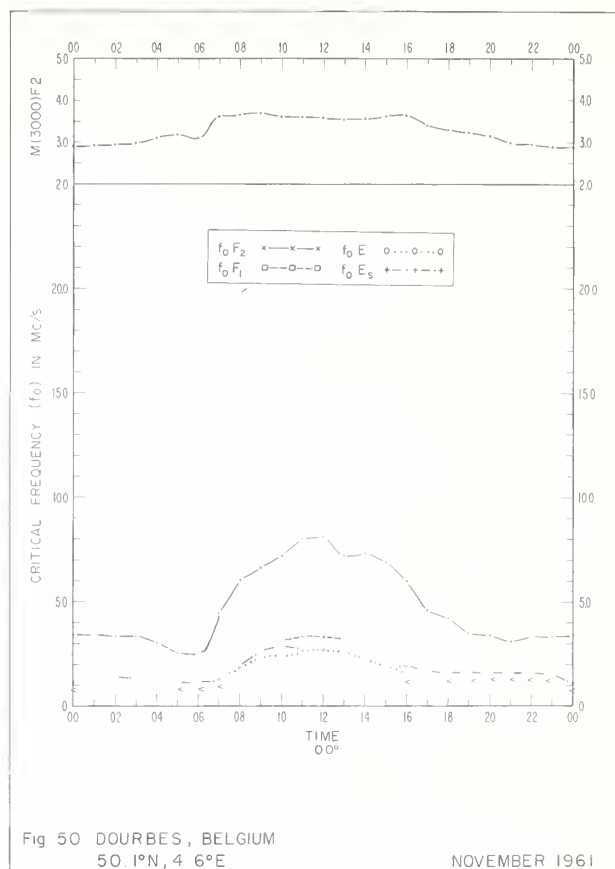
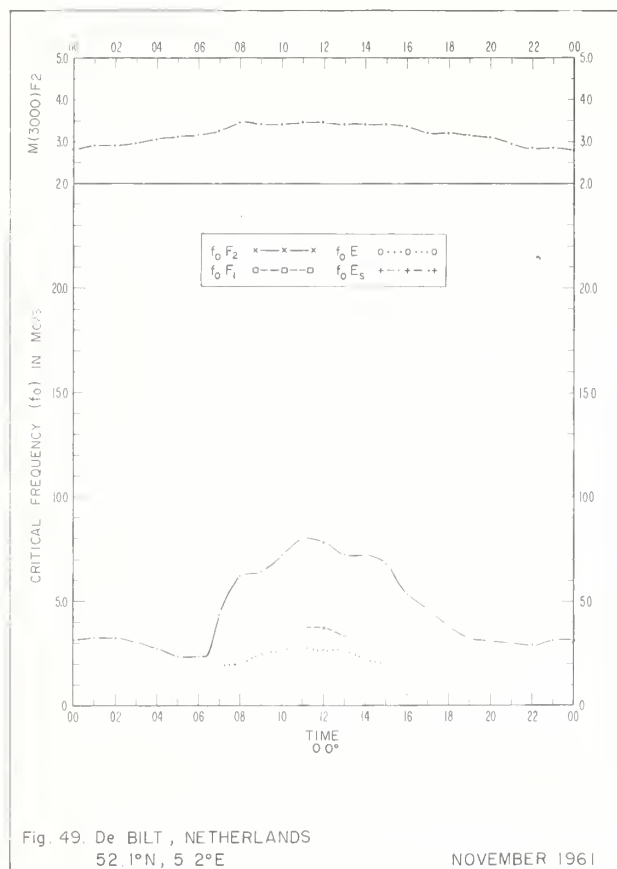


Fig 48. JULIUSRUH/RÜGEN, GERMANY  
54.6°N, 13.4°E

NOVEMBER 1961



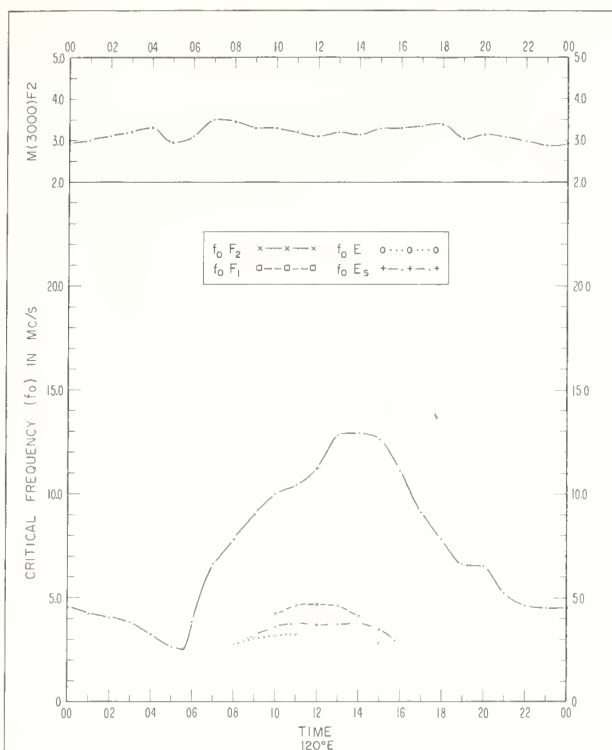


Fig 53. FORMOSA, CHINA  
25.0°N, 121.5°E

NOVEMBER 1961

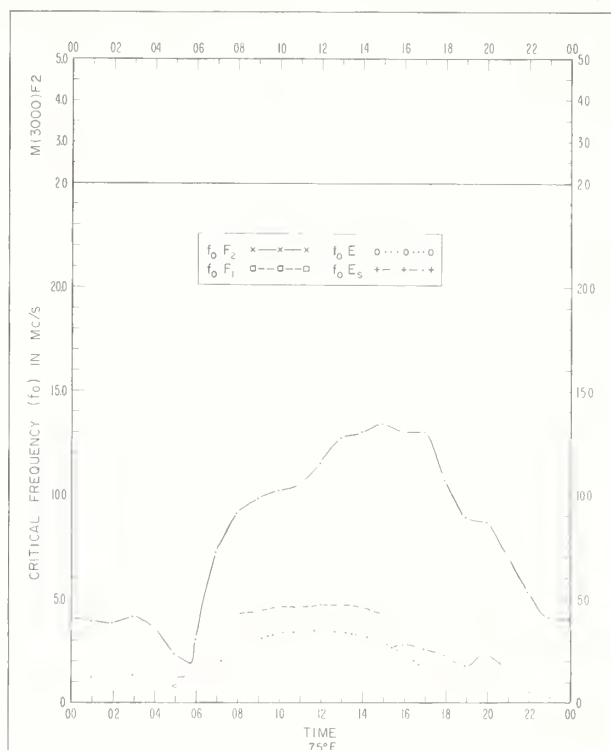


Fig 54. AHMEDABAD, INDIA  
23.0°N, 72.6°E

NOVEMBER 1961

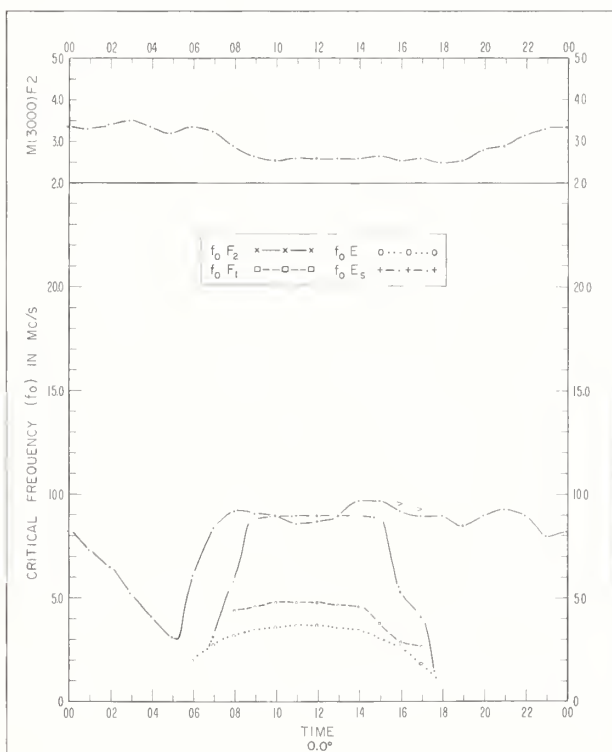


Fig 55. IBADAN, NIGERIA  
7.4°N, 3.9°E

NOVEMBER 1961

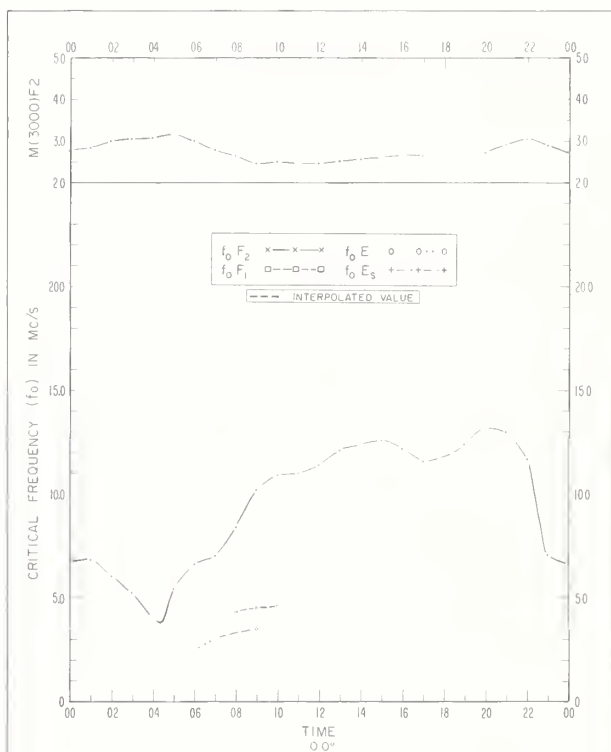
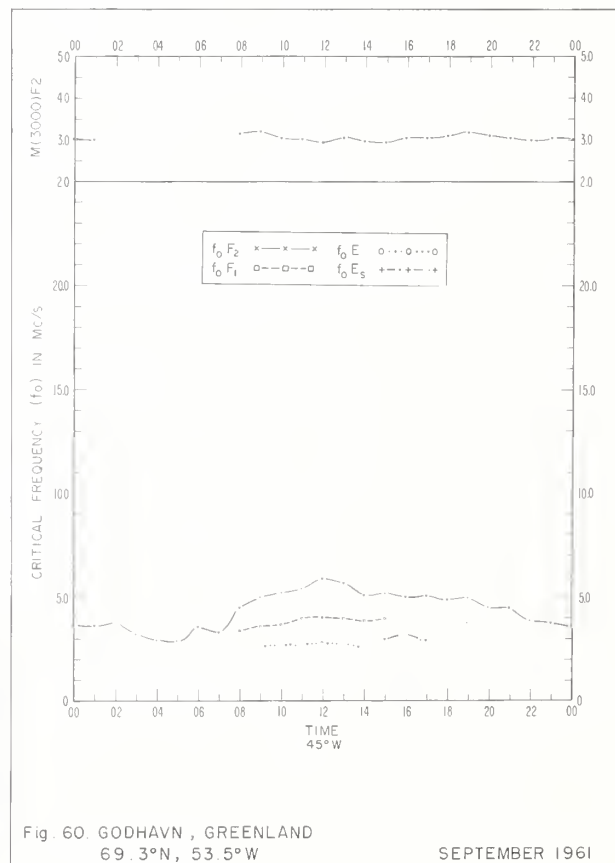
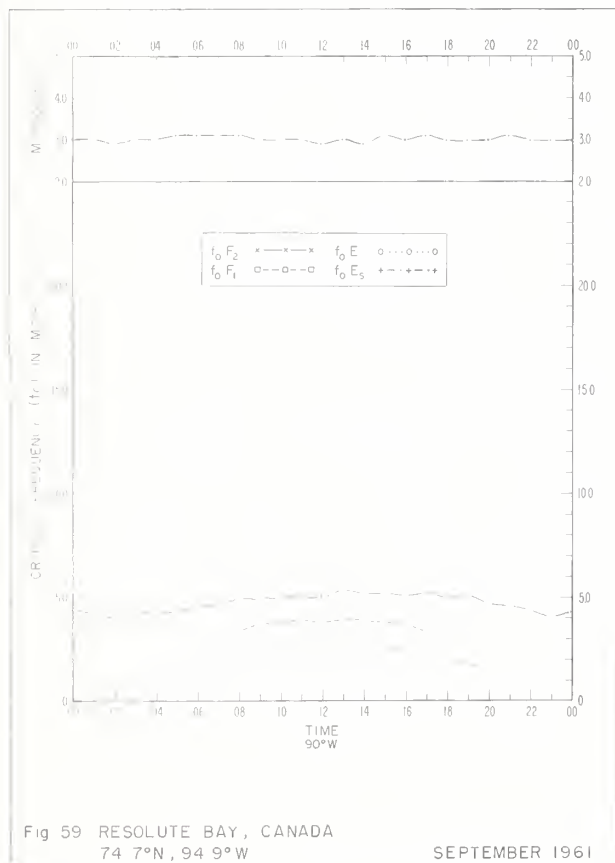
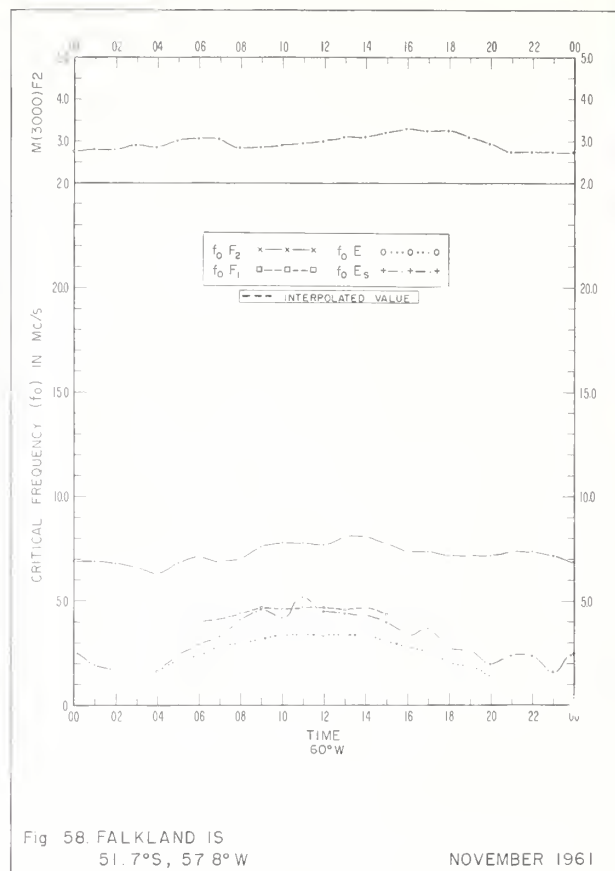
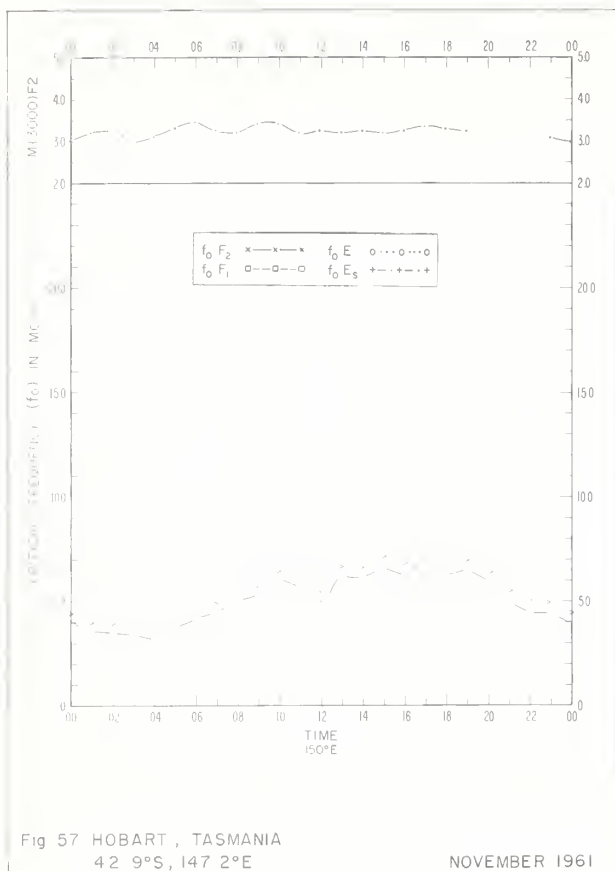


Fig 56. LEOPOLDVILLE, CONGO  
4.4°S, 15.2°E

NOVEMBER 1961





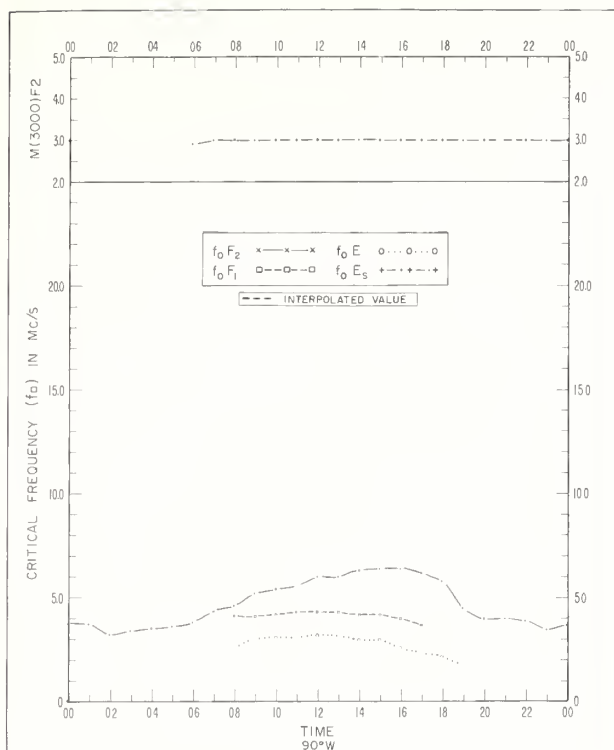


Fig 61. CHURCHILL, CANADA  
58.8°N, 94.2°W

SEPTEMBER 1961

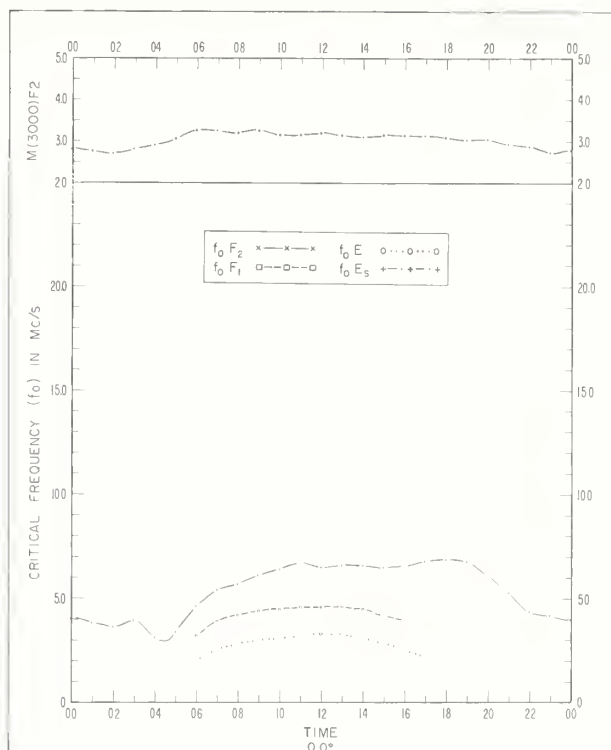


Fig 62. De BILT, NETHERLANDS  
52.1°N, 5.2°E

SEPTEMBER 1961

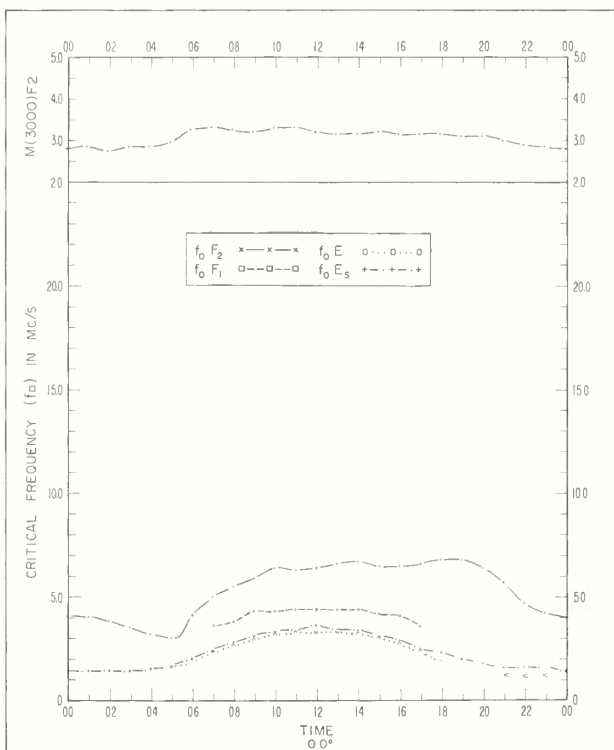


Fig 63. SLOUGH, ENGLAND  
51.5°N, 0.6°W

SEPTEMBER 1961

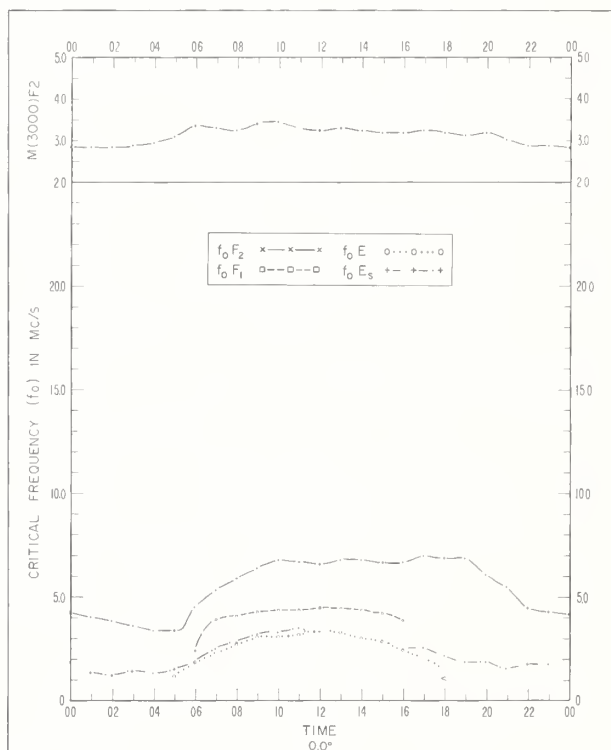
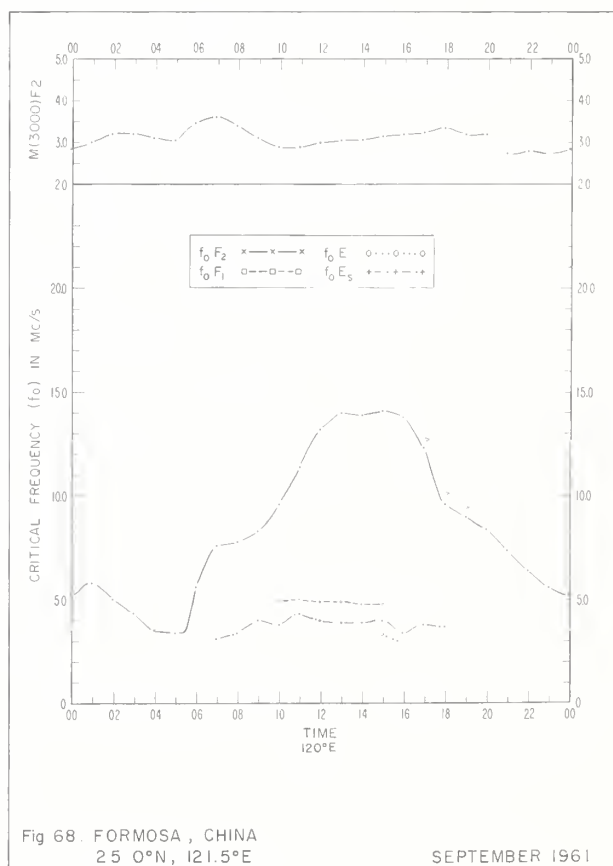
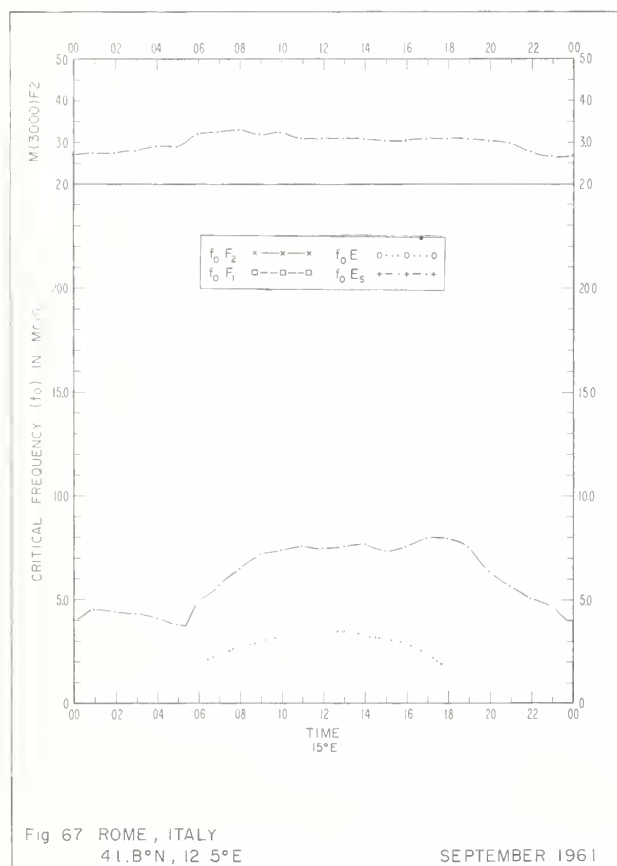
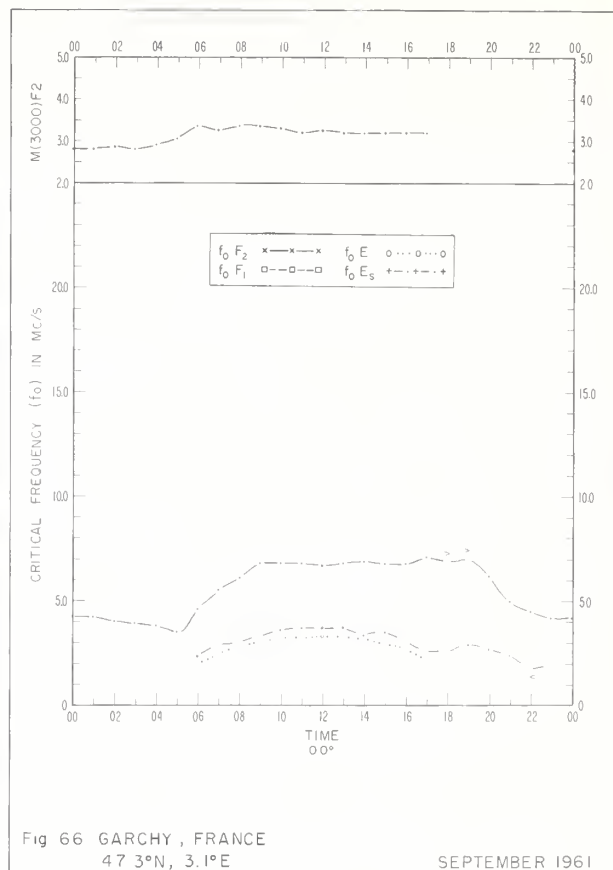
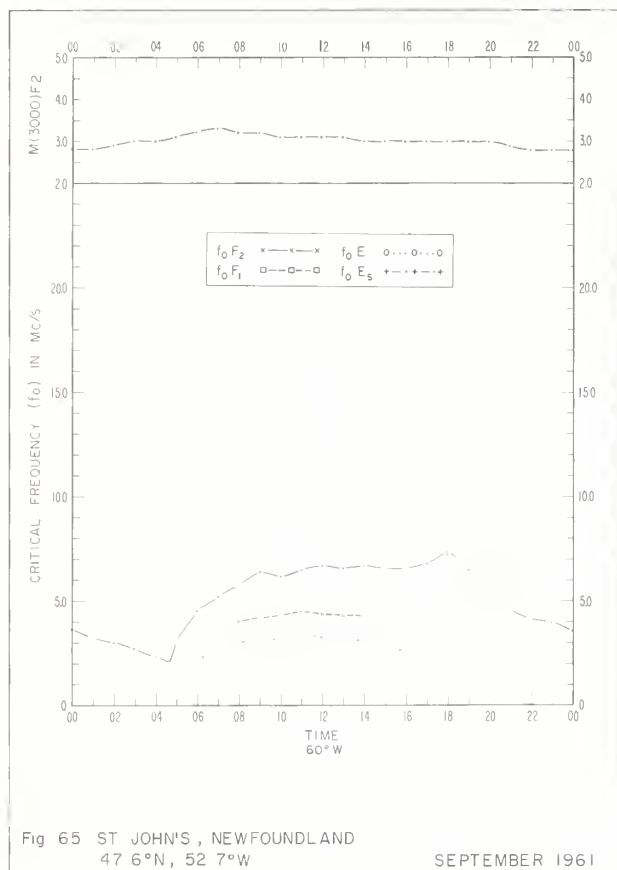


Fig 64. DOURBES, BELGIUM  
50.1°N, 4.6°E

SEPTEMBER 1961



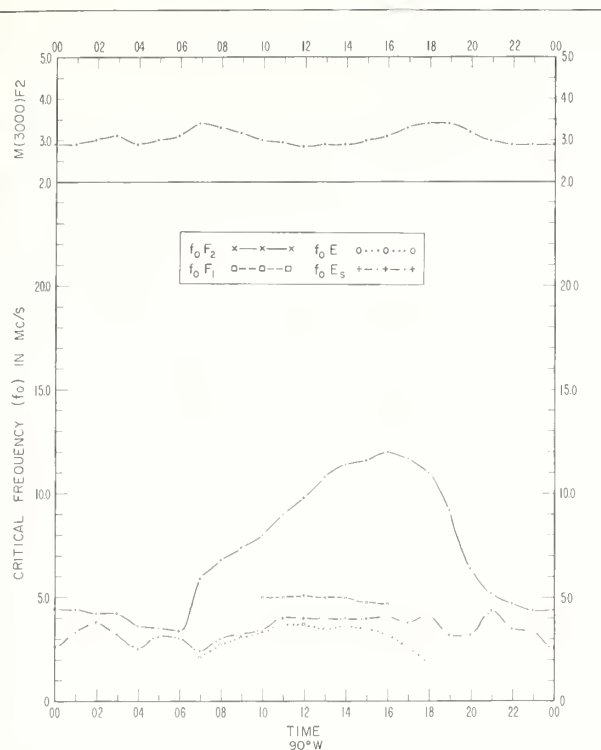


Fig. 69. EL CERILLO, MEXICO  
19.3°N, 99.5°W

SEPTEMBER 1961

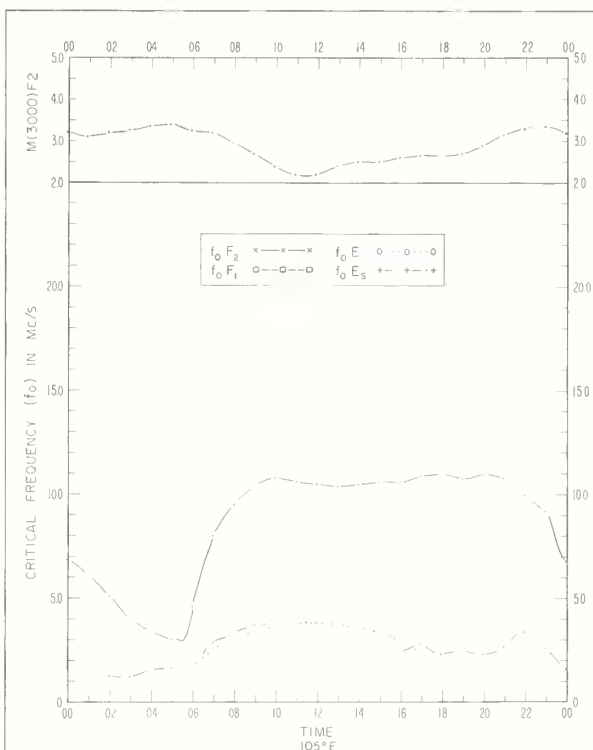


Fig. 70. SINGAPORE, BRITISH MALAYA  
1.3°N, 103.8°E

SEPTEMBER 1961

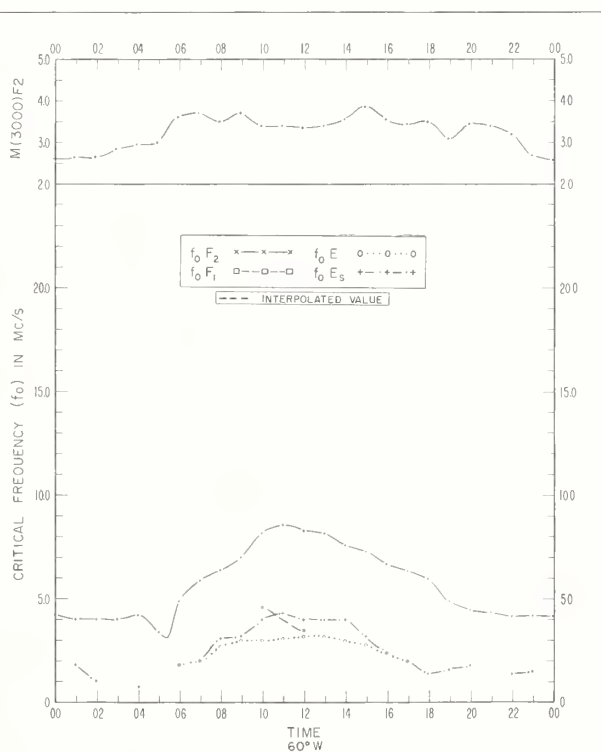


Fig. 71. FALKLAND IS.  
51.7°S, 57.8°W

SEPTEMBER 1961

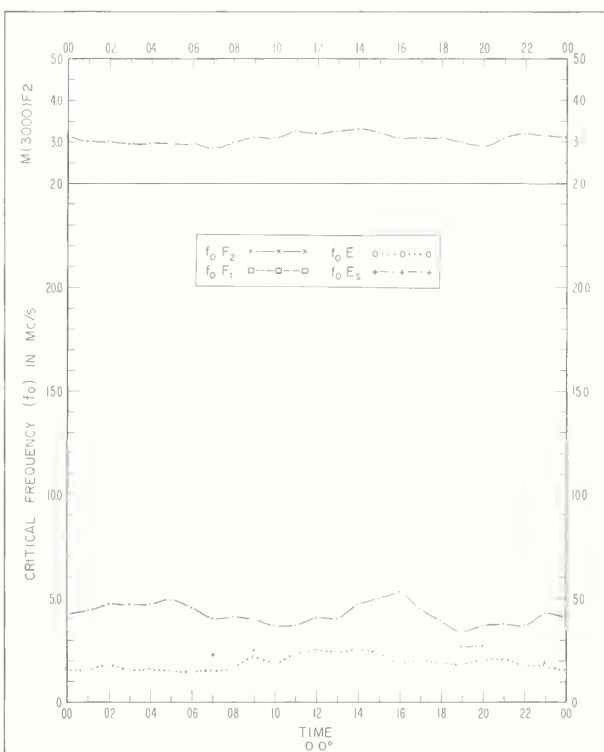
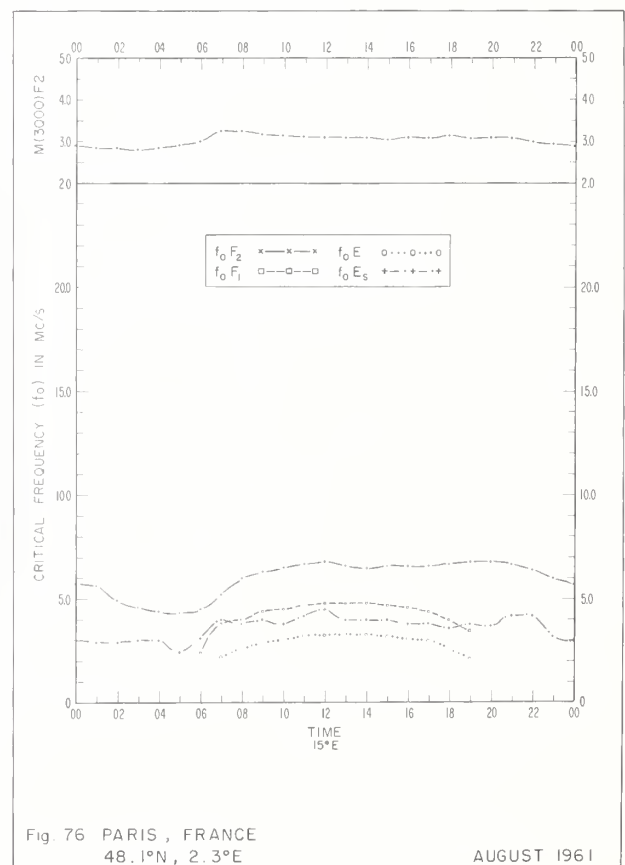
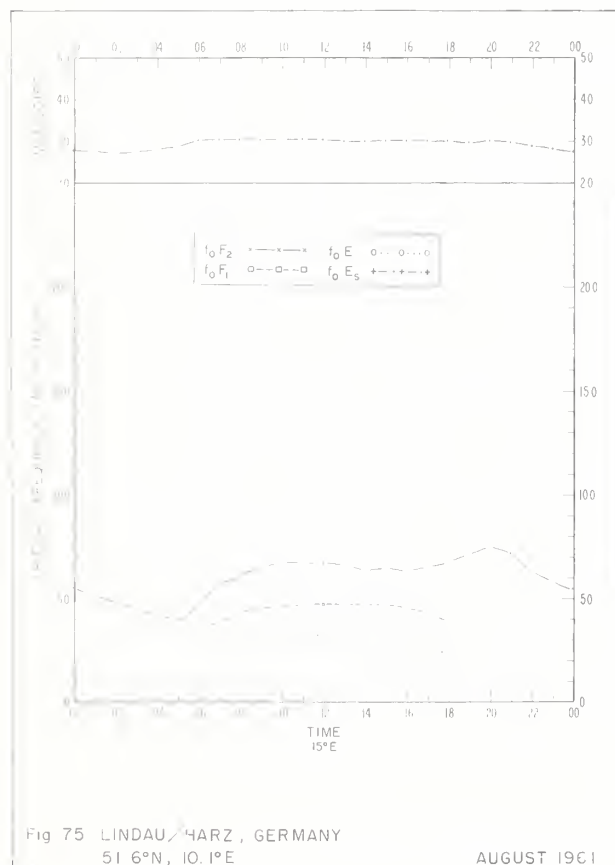
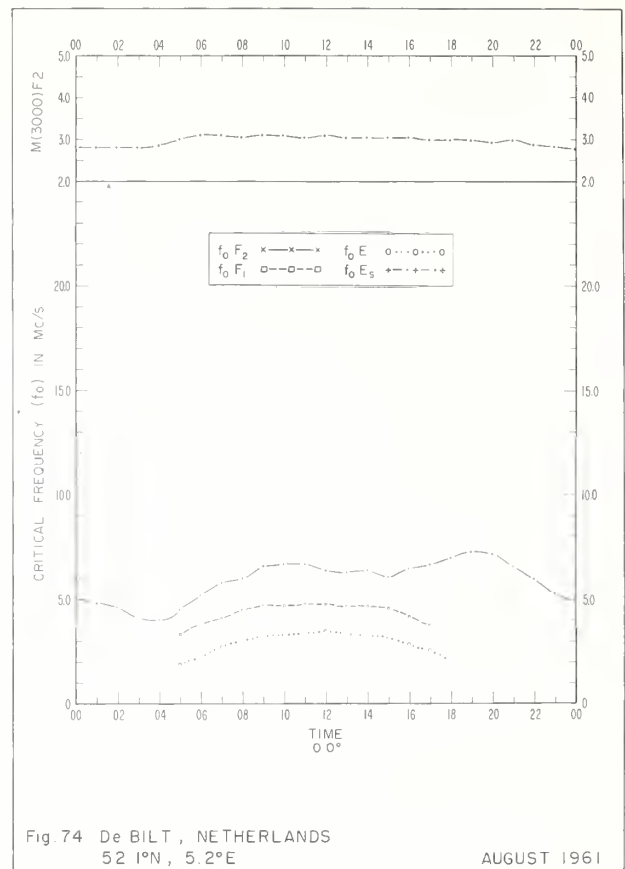
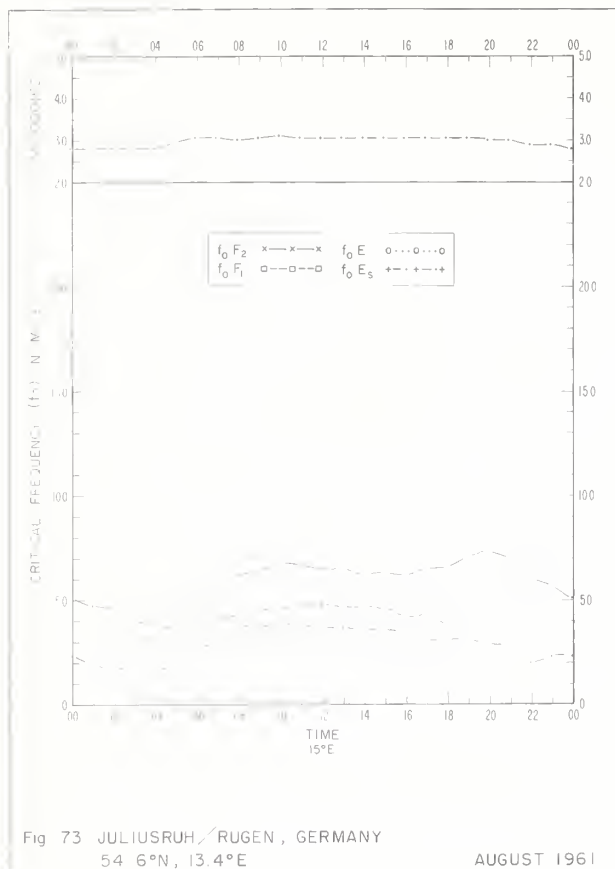


Fig. 72. POLE STATION, ANTARCTICA  
90.0°S

SEPTEMBER 1961



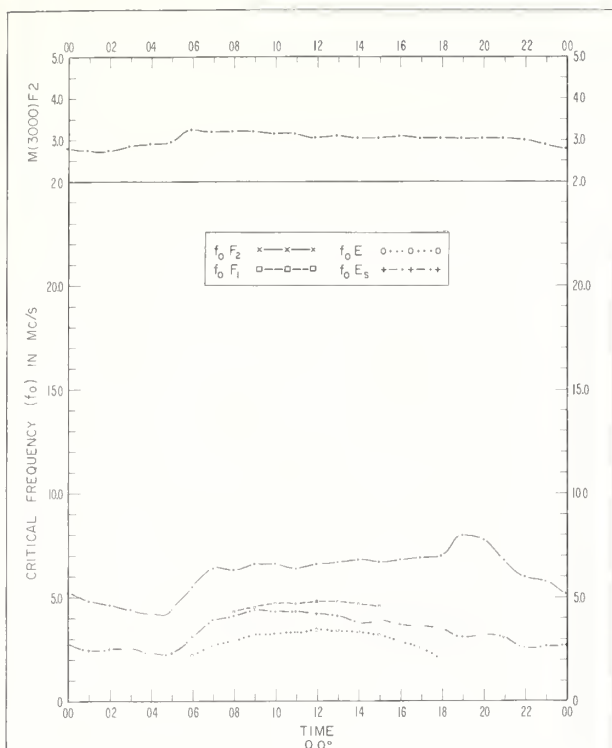


Fig 77. GARCHY, FRANCE  
47.3°N, 3.1°E

AUGUST 1961

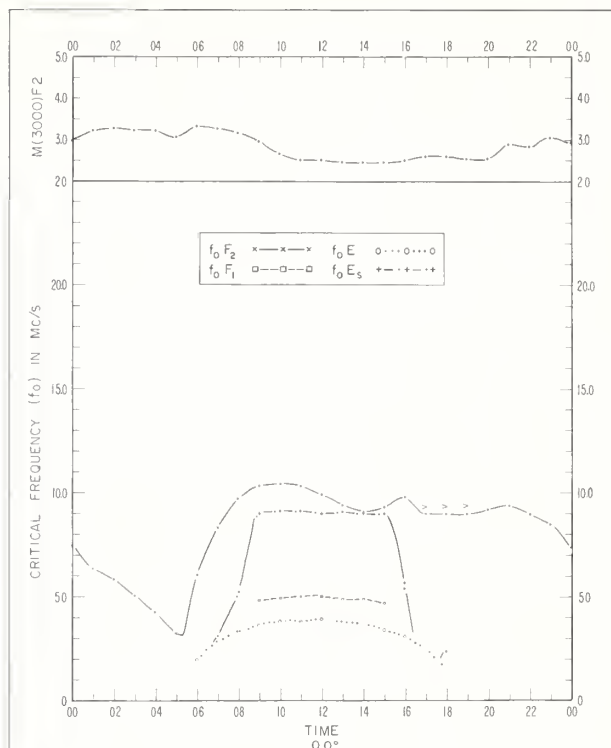


Fig 78. IBADAN, NIGERIA  
7.4°N, 3.9°E

AUGUST 1961

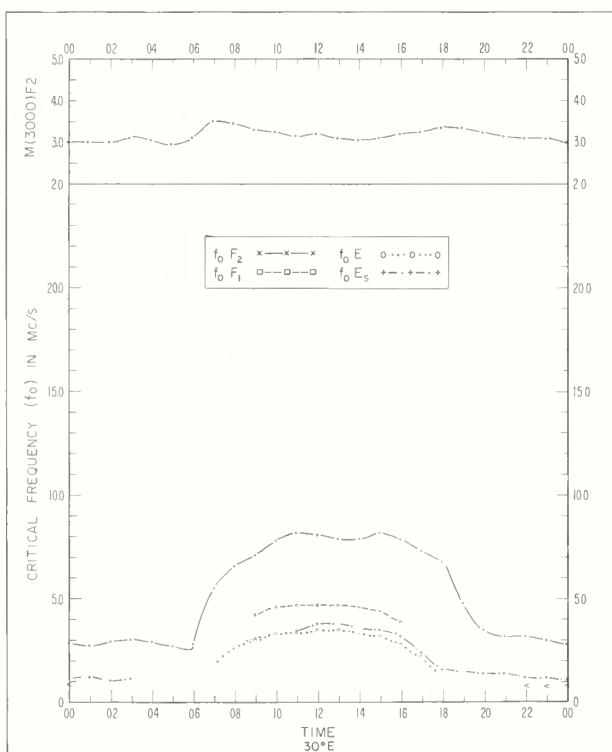


Fig. 79. JOHANNESBURG, UNION OF S. AFRICA  
26.1°S, 28.1°E

AUGUST 1961

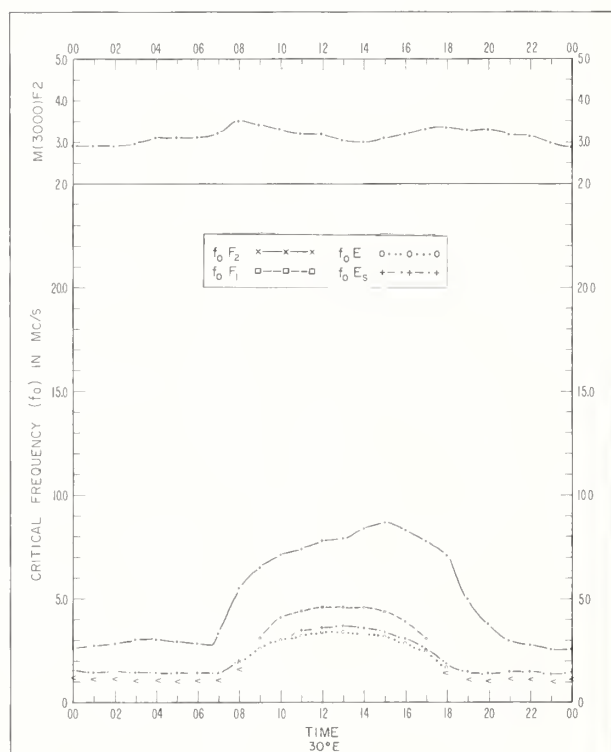


Fig. 80. CAPETOWN, UNION OF S. AFRICA  
34.1°S, 18.3°E

AUGUST 1961

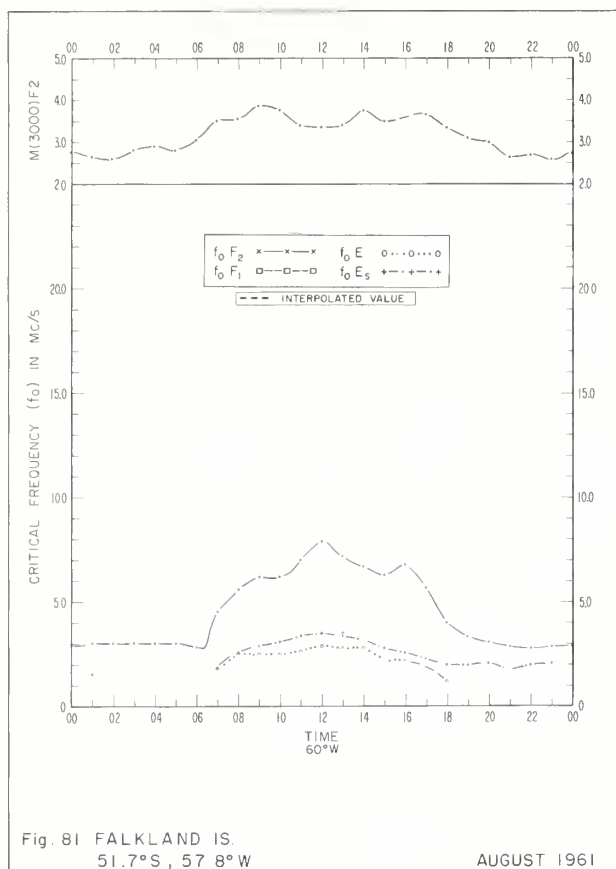


Fig. 81 FALKLAND IS.  
51.7°S, 57.8°W

AUGUST 1961

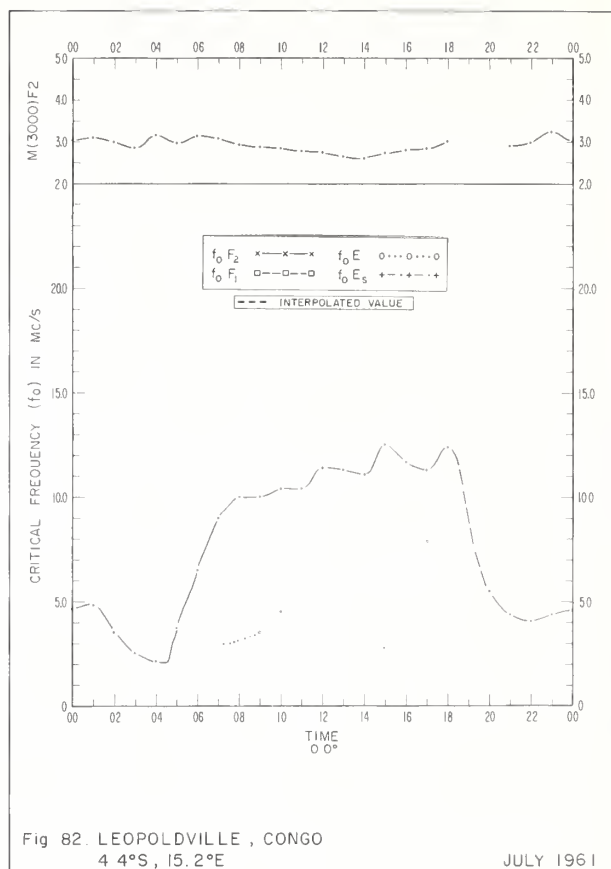


Fig. 82 LEOPOLDVILLE, CONGO  
4.4°S, 15.2°E

JULY 1961

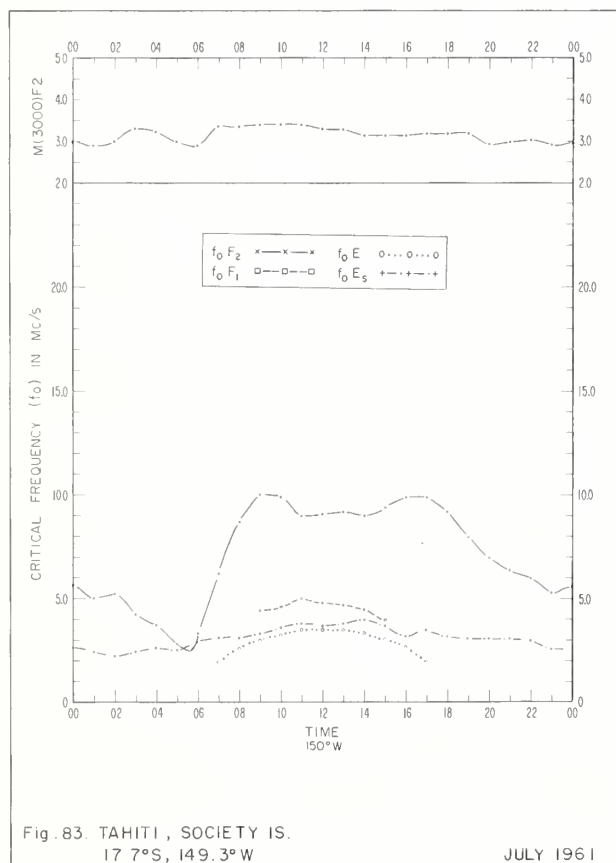


Fig. 83 TAHITI, SOCIETY IS.  
17.7°S, 149.3°W

JULY 1961

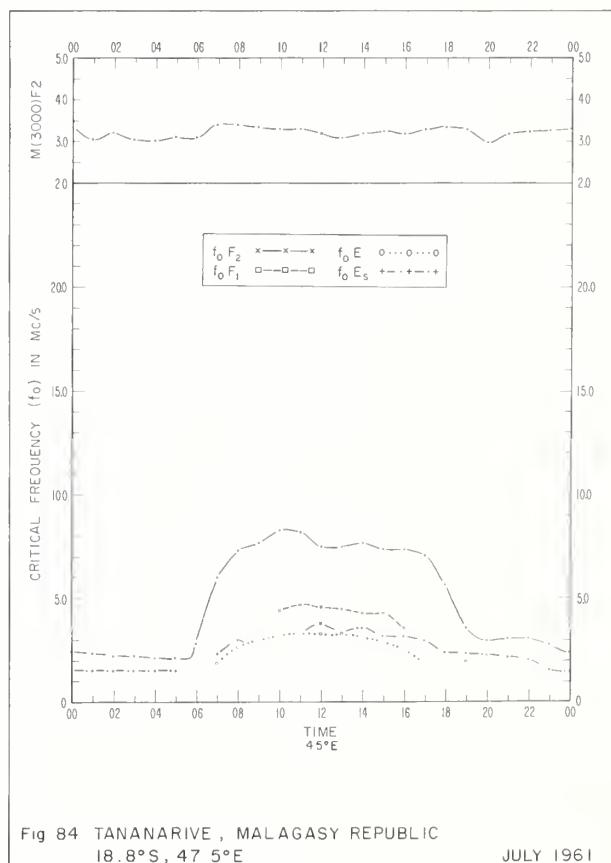
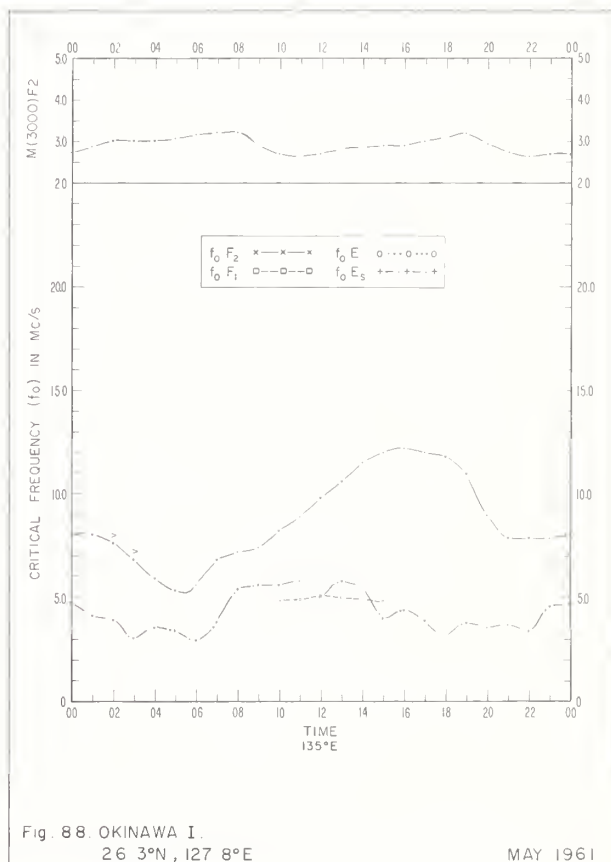
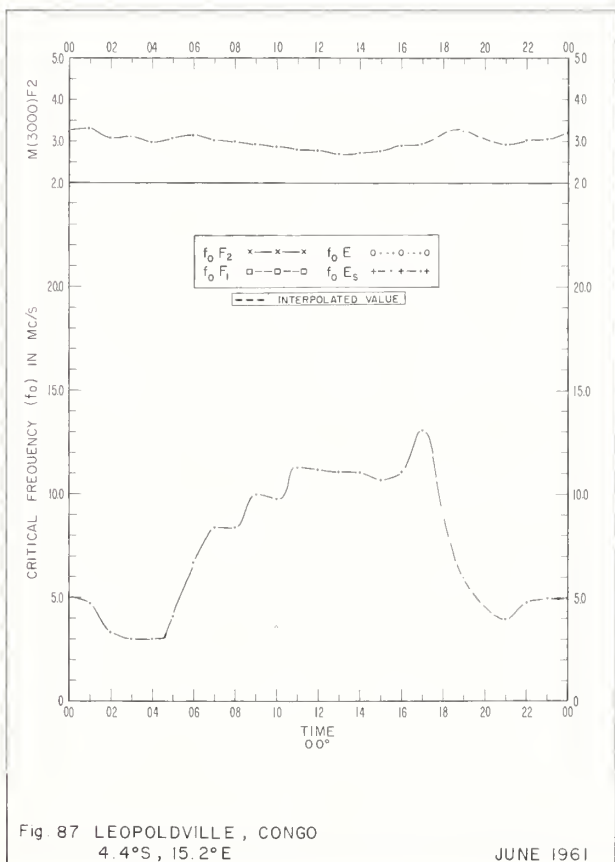
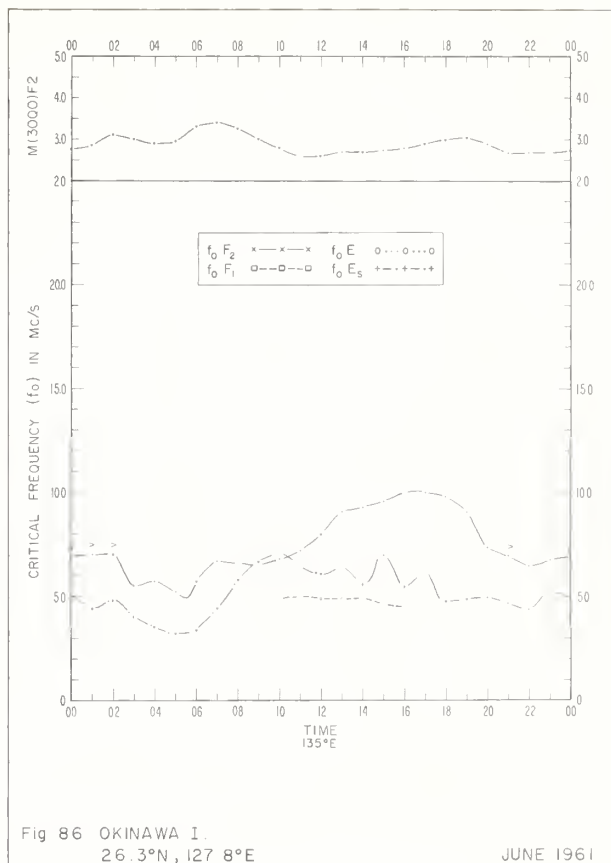
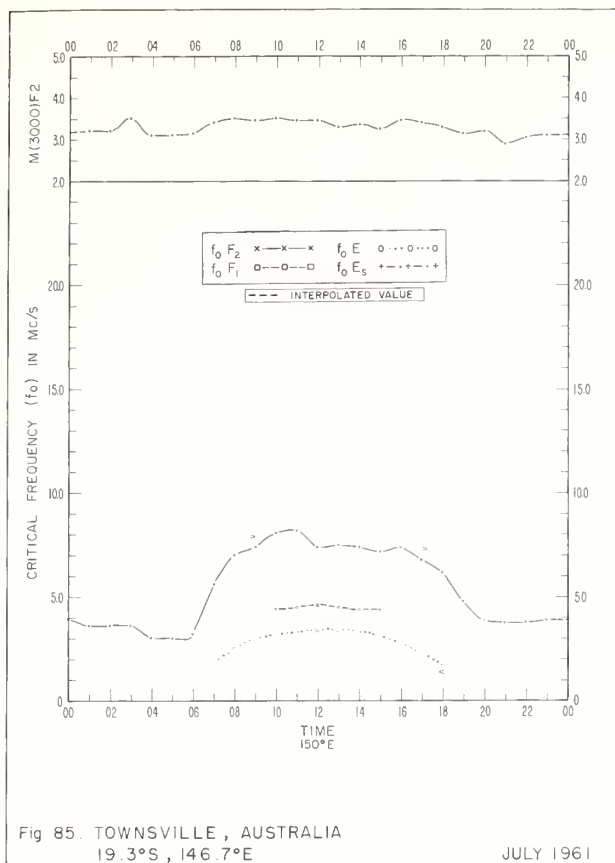
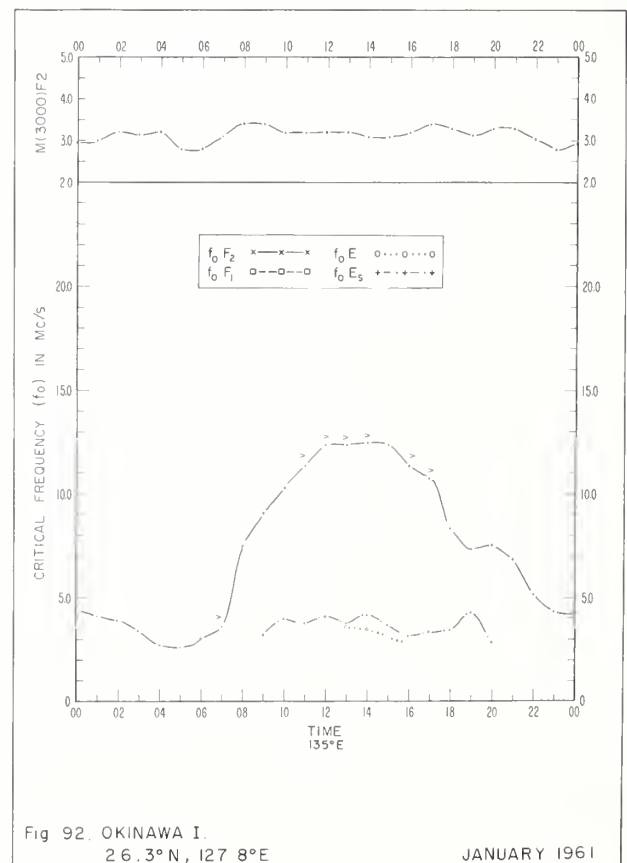
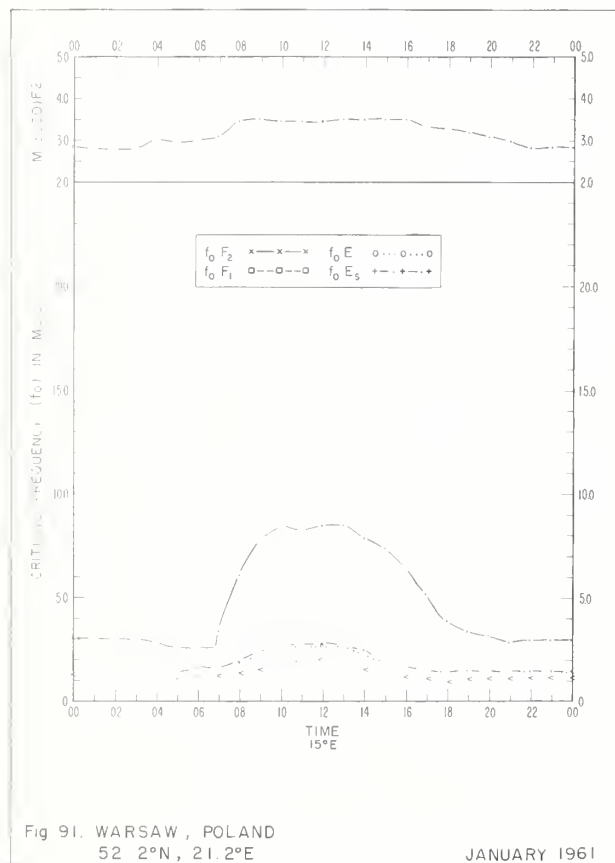
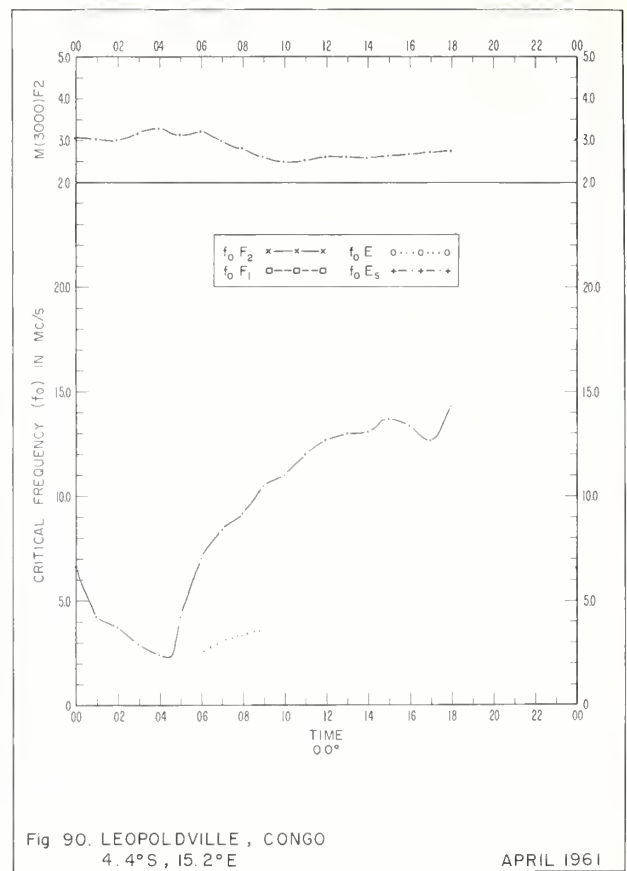
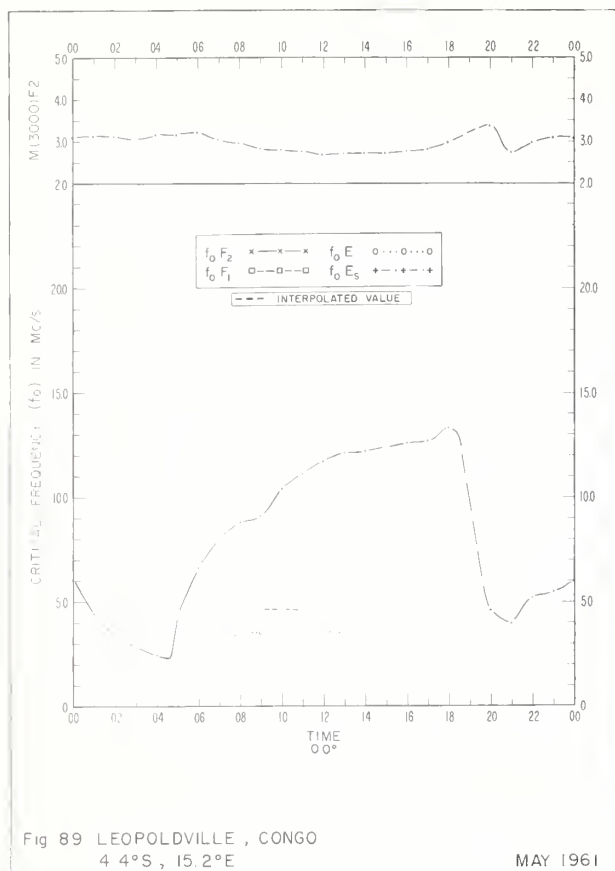


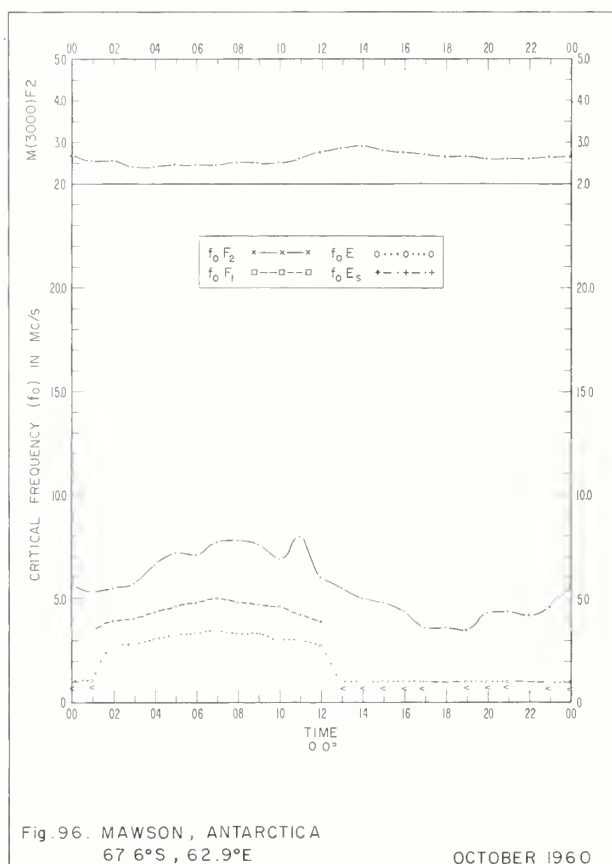
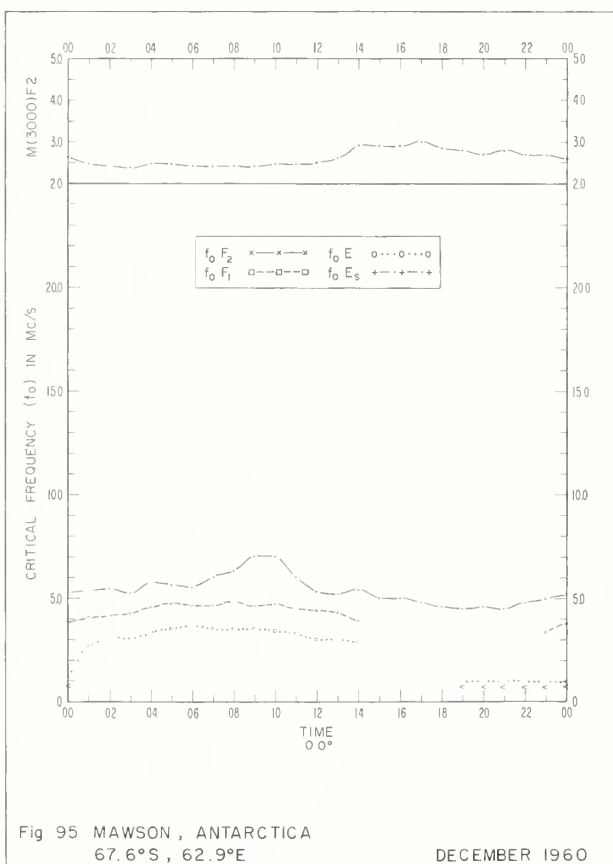
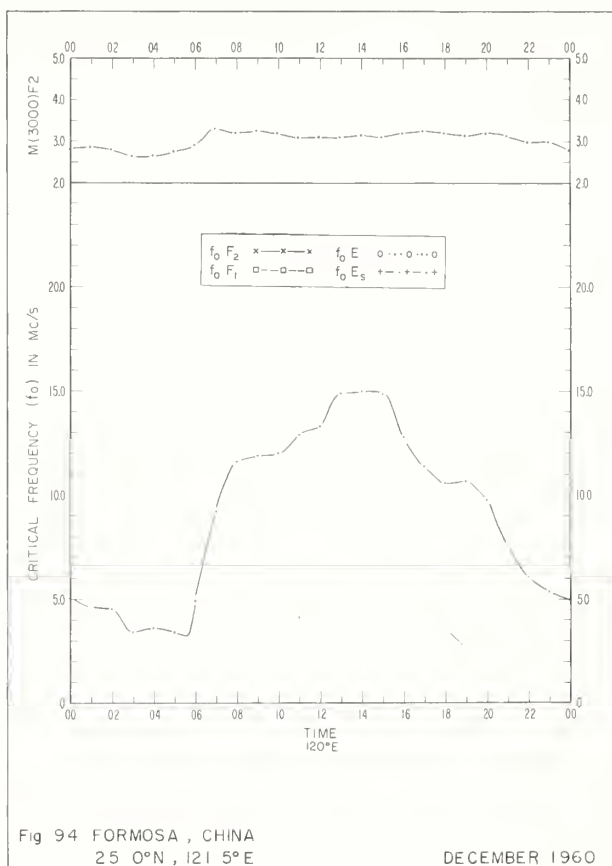
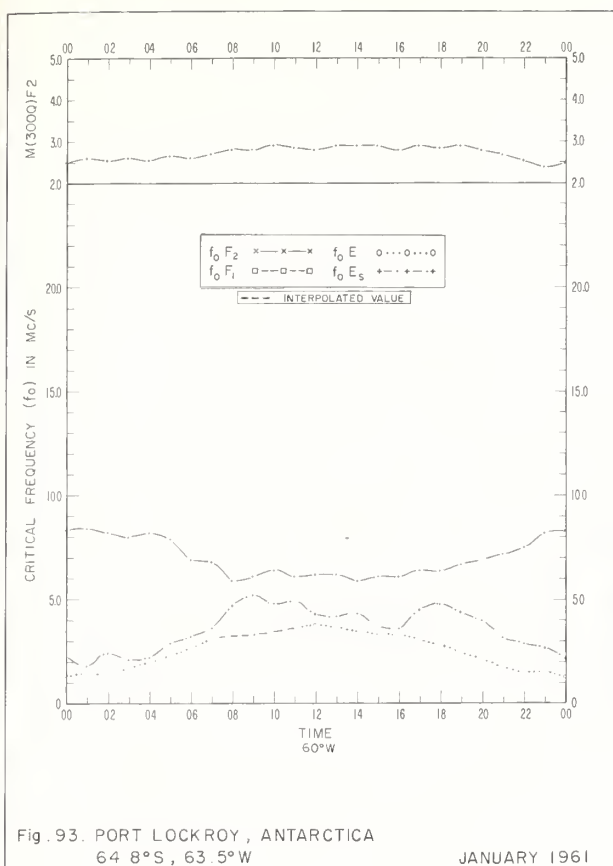
Fig. 84 TANANARIVE, MALAGASY REPUBLIC  
18.8°S, 47.5°E

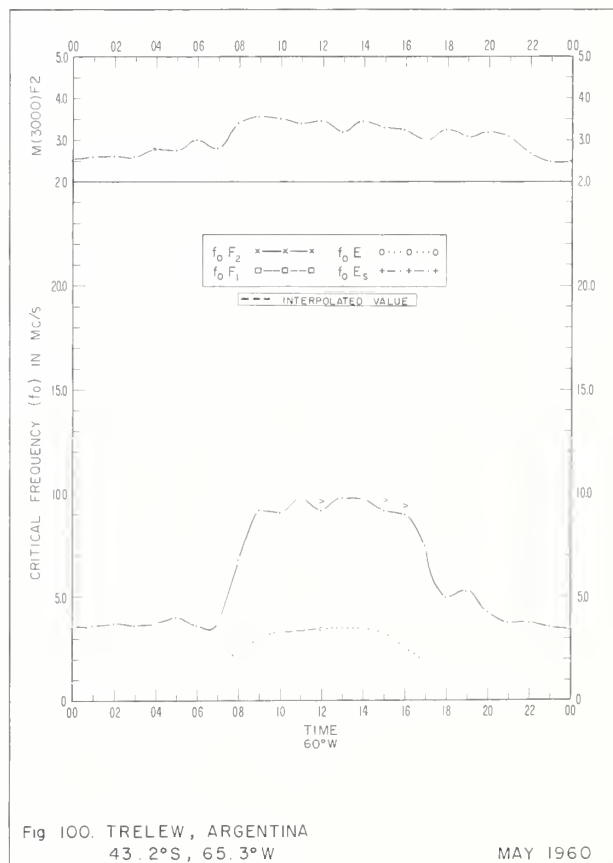
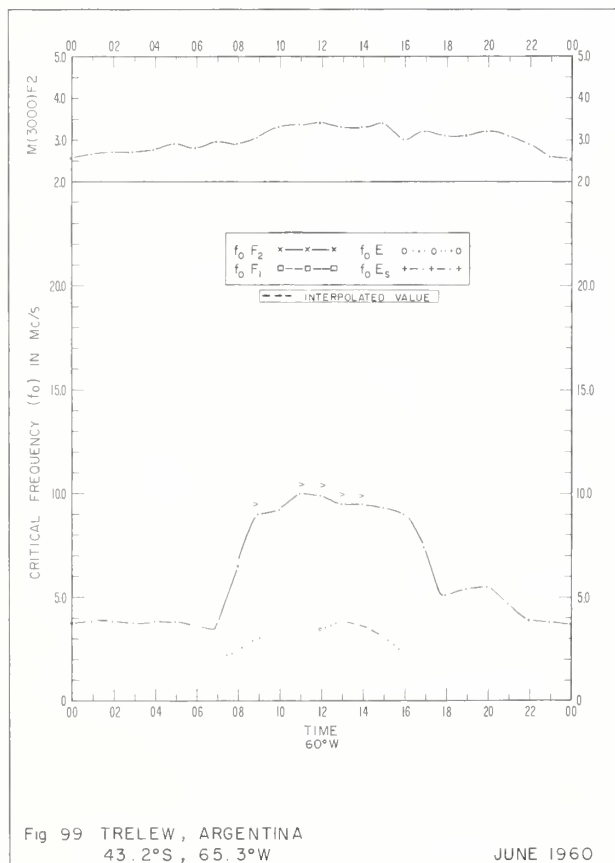
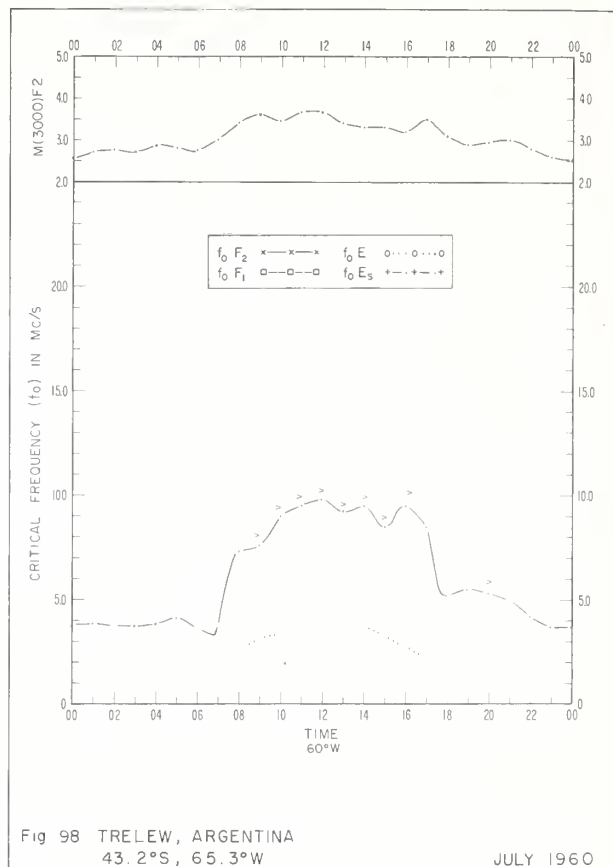
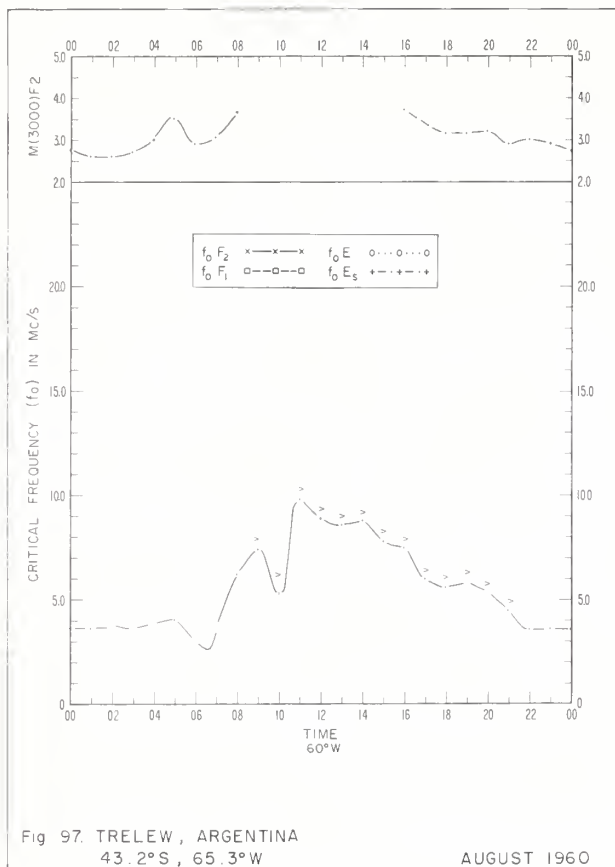
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## CRPL REPORTS

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### Catalog of Data.

A catalog of records and data on file at the U.S. IGY World Data Center A for Airglow and Ionosphere, Boulder Laboratories, National Bureau of Standards, Boulder, Colorado, which includes a fee schedule to cover the cost of supplying copies, is available upon request.

CRPL-F (Part A), "Ionospheric Data."

CRPL-F (Part B), "Solar Geophysical Data."

These monthly bulletins have limited distribution and are sent, in general, only to those individuals and scientific organizations that collaborate in the exchange of ionospheric, solar, geomagnetic, or other radio propagation data of interest to the CRPL. Others may purchase copies of the same data from the U.S. IGY World Data Center A for Airglow and Ionosphere, National Bureau of Standards, Boulder, Colorado.

### "Ionospheric Predictions."

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